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ART. I.—PECULIARITIES OF ANIMAL AND VEGETABLE LIFE.

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NATURE presents us with two grand divisions; theone animate and the other inanimate. The former embraces animals and plants; the latter comprises the various minerals entering into the composition of the earth, or found upon its surface. The former is always complicated in structure, consisting of three, four, or more proximate elements; the latter is generally simple, never embracing more than two, or at most three elementary bodies. The laws by which they are governed, are also entirely dissimilar. In the one they are numerous and intricate; in the other they are few and comprehensive—In the one they are vital; in the other they are physical.

In obedience to a few common forces, all the inorganic matter of the universe is kept in place, or made to revolve in uniform directions, which cannot be changed while the harmony of nature remains unbroken. When particles of minerals are separated by mechanical causes, they eventually re-combine, with a mathematical precision peculiar to each, until all the angles and facets of the crystal are rendered complete. Even if dissimilar bodies be compelled to unite, they always do so, in certain definite proportions,according to their chemical affinities; so that the precise structure of a compound can invariably be calculated by a knowledge of the elements of which it is composed. Indeed, wherever we turn our attention in contemplation of the phenomena of physical agents, we find them under the control of a few all-pervading principles of order. The same immutable force binds the dew-drop to the pointed grass, or the ink to the tip of my pen, which holds the solar system to its centre, or even enables that entire system, with a multitude of others, to swing round a common point to which the entire universe is bound. No separate chain is necessary for each, but one grand, incomprehensible principle of attraction governs the whole.

Organic matter, however, presents an aspect essentially different. The most humble department abounds with intrica-

cies at every step, and as we rise in the scale of life, the phenomena are always changing; consequently, we find boundless variety and constant mutation, instead of the general laws and uniform combinations we have just been studying. The defined planes and angles are exchanged for an inconceivable variety of forms; the whole the result of a plan of construction peculiar to every species of animal or vegetable. But should these difficulties frighten us from the elevated study of vital philosophy? Should they not rather impress us with new desires, and inspire us with fresh zeal, in our efforts to understand the controlling laws of animated nature? Nothing contributes more to enlarge the mind, and elevate it above the influence of a mere mechanical philosophy, than the study of the laws of life, either in reference to individuals, or to the whole organized world. At every step we take we approximate still more the GREAT AUTHOR of the Universe, and are placed farther from the 'dark mass of mind;' which is invariably the result of idleness, ignorance and superstition. Who that has never studied animal life, is aware of its extent? It is probable that the human eye can recognize but few of the living beings with which we are surrounded. Late improvements in the microscope have revealed to us no less than five hundred millions of living animals, in a single drop of water; a sum even greater, as a late author observes, than all the human beings on the surface of the globe. What a world of atomic life is here congregated in so small a space, and yet each animalcule appears to be in the full enjoyment of all the pleasures it can possibly derive from an organized existence!

But if we leave these minute *Monads*, and turn our attention to animals appreciable by the naked eye, what an immense variety is presented to us in the various media by which we are surrounded? If we float upon the surface of the ocean, or sink into its depths; if we roam over the earth, or penetrate its caverns; if we examine the air in any situation, or even the bodies of other animals, we will find living beings furnished by nature, with all the organs necessary for their peculiar existence, in whatever situation they are placed.

When we turn from this beautiful and interesting department of animated nature, in order to examine the vegetable kingdom, we find the variety equally extensive, while the study is even more fascinating and less laborious. The germination of seeds, the growth of stems, the expansion of buds, and the unfolding of leaves and flowers, are equally as much the legitimate offspring of vitality, as the most complicated phenomena

of animal action. Vegetables, too, are found in every portion of the globe, and sometimes their size is so extremely diminutive, that they can only be seen by the microscope.

But however immense the distance may be between organized and inorganized nature, or however different the forces by which they are governed, still the materials for the construction of the former, must always be obtained from the latter. The power which accomplishes a metamorphosis so strange, is, it is true, incomprehensible; but the laws by which the growth and preservation of the whole is effected, may be fairly ascertained by a diligent study of the phenomena of life. It is well remarked, by a late writer on this beautiful and interesting subject, that every individual animal and vegetable takes its rise from an atom of imperceptible minuteness, and gradually increases in bulk by successive accretions of new matter, derived from foreign sources, and by some refined, but unknown process, transmuted into its own substance. This transmission and elaboration of material particles, not only continues in the animal, until it reaches its ultimate growth, but ceases only with its life. Its duration, as a whole, is not only limited to a definite period, but the various particles of which it is composed, are soon worn out, and cast off from the body, while their places are supplied by new materials derived from surrounding agents. Hence there is a constant passage of atoms to and from the solids of the body. This is accomplished by means of the circulation of the blood or other fluids, and the peculiar and refined chemistry by which the foreign materials are organized, or endowed with vitality, constitutes the most important part of nutrition. The change has been termed assimilation, but this conveys no idea of the power which superintends the construction and repair of the living machine, nor of the immediate instruments by which the whole is accomplished.

Nutrition, or the principle by which animals and vegetables are built up and sustained during their existence, requires an extensive aparatus, as well as a most refined and accomplished mechanist, to complete the developement of organic nature. In every department the process is essentially different, but even in the most simple, it implies, in the original design, intelligence, thought, motive, power, and skill. Here the confirmed sceptic is almost forced to acknowledge the existence of a high mental endowment, although he may deny it in the mere aggregation of particles which constitutes the growth of minerals.

We have already said that organized nature is built up and supported by matter drawn from the inorganic. This is strictly

true, whether we refer to the animal or vegetable. It seems to be one of the principal laws of nature, that the higher departments shall subsist upon that which is below them, in the scale of creation. Thus the vegetable lives upon the soil, while the animal draws the material of which it is composed from the vegetable. The former could not exist without the latter, any more than the latter could without the earth itself.

After these remarks on general physiology, let us turn our attention to the structure and growth of plants, since they seem to form the primary link in the scale of organization. The nutrition of vegetables comprises a more extended series of operations than many may imagine. The crude materials are drawn from the surrounding elements, by a process of absorption, and thrown into vessels, where they circulate until they reach the atmosphere, and undergo chemical changes, fitting them for the deposition of solids composing the several organs, or entering into the peculiar products of plants. This process is altogether the result of vital action, and very far surpasses the utmost skill and ingenuity of man, even when aided by the finest productions of nature. He might as well attempt to inspire the most lofty statue with a principle of life, and to cause it to traverse the globe with lengthened strides, as to imitate the exquisite workmanship of the most simple vegetable.

Plants invariably spring from seeds, roots, or cuts, and are never the product of a strictly spontaneous growth. It is true they sometimes seem to arise from the earth thrown out of deep excavations, but in these instances, the seeds were either floating in the atmosphere and arrested by the inequality of the excavated earth, or blended with the alluvia in which they were imbeded when it was formed. The length of time that life often remains inactive in seeds and bulbous roots, if we except a few of the lower order of animals, forms one of the peculiar features of vegetable organization. Some time since an instance was given in some of the periodicals, of seeds and roots readily shooting, after being buried many centuries with the ruins of Pompeii, hundreds of feet beneath the surface of the surrounding lava.

Seeds, however, do not only retain their vitality for long periods, but they often grow upon rocks, apparently deprived of a soil. This is especially the case with the germinating principle of many of the mosses, and other inferior vegetables. The coral island, the offspring of a minute acquatic animal, is covered by verdure soon after it rises above the level of

the ocean. The growth at first is simple, but one generation of plants succeeds another, each appearing to rise higher in the scale of vegetable life, until a dark forest, with all its grandeur and varied forms of tree and shrub, decorates the surface of the sea. The action of the falling waters wears down portions of the coral plain, until it is chequered by hills and valleys, and otherwise fitted for the abode of intelligence. The primitive vegetable growth, accomplishes much in this strange metamorphosis. The seeds, floating in the atmosphere, are arrested by the crevices in the rocky island, where they are retained until they germinate, and produce a plant, of the lowest order it is true, but sufficiently elevated to form a kind of soil by its decay, which is afterwards the receptacle of the seeds of different plants, carried thither by the great variety of birds, which pass from one continent to another.

Here animals and vegetables perform a kind of new creation; the one rears an extensive island from the bottom of the deep, while the other seizes upon it and converts it into a natural and luxuriant garden, which, in time, becomes the habitation, not only of the inferior animals, but also of man himself. Many of the islands in the Pacific Ocean, have been thus made and thus inhabited.

Water has been considered as the entire food of plants; but late experiments prove that this agent, when pure, will not sustain vegetable life. It must contain a quantity of carbonic acid with some other ingredients, or the plant will soon perish—hence, a soil is more or less fertile according to the amount of such materials found in it.

But notwithstanding water seems to be the vehicle which conveys the materials composing the plant, into its system, still they are generally obtained from the soil in which it grows. The water, in its pereolation through the earth, dissolves more or less of the carbonaceous, saline, earthy, and metalic substances, which it meets with in its passage. It is worthy of remark, that nothing ever seems to enter a vegetable in its simple state, but every thing must be dissolved in a fluid, before it can be taken up by the vessels of the plant. Sir Humphrey Davy, of whose researches chemical science may well be proud, attempted to make the roots of mint absorb carbon, when reduced to an impalpable powder, but he could not succeed, even in the smallest degree. Even silex, one of the hardest of rock minerals, must be taken up by water before it can be carried into the interior of the various grasses, or deposited upon their surfaces, where it is often so abundantly found.

In the greater number of plants, the roots are the organs which select the elements of vegetables from the media which surround them. It is true this is not the case with the *Algæ*, or water plants, but these, as well as the *Lichens*, cannot be said to possess a vascular structure.

The entire root does not seem to perform the function of absorption. This is solely accomplished by the extremities, where the vessels seem to terminate with open mouths, and to be constantly moving onwards, though their motion is imperceptible, in pursuit of food. Their direction may be inferred by the shape and inclination of the branches, for they are always more or less similar, and generally of nearly equal lengths. It is a fact worthy of notice, that the water, from the leaves at the extremities of the branches, always falls near the terminations of the rootlets, and thus furnishes them with the fluids necessary for the continuation of their functions. Here we have a beautiful instance of the economy of nature, seldom noticed by the few writers, who have studied vegetable physiology.

After the fluids enter the rootlets, they pass along the vessels of the stem and branches, until they reach the leaves, where they undergo a further change, fitting them for the special nutrition of the entire vegetable. This circulation is the offspring of an action strictly vital, and perhaps is accomplished by a contraction peculiar to the vegetable tissue, and exerted under laws which have not yet been fully investigated, and perhaps never may be correctly determined.

After the sap enters the structure of the vegetable, it is endowed with a principle of vitality, and becomes a living fluid; hence it will not congeal, even when the mercury in Fahrenheit's thermometer stands many degrees below the freezing point. The sap in buds has remained fluid, according to the experiments of Mr. Hunter, at seventeen degrees below zero, on the scale just named.

Large quantities of pure water pass off daily from the surface of vegetables, and this exhalation is always increased with the intensity of the light. Hales found that a common sun-flower, three feet high, lost daily nearly twenty ounces of water. This may give us some idea of the large quantities of this fluid which passes through the vessels of vegetables. The exhalation takes place principally from the surface of the leaves, where a number of important changes are accomplished in the circulating fluids.

Leaves perform the same offices in the vegetable, that the lungs do in the animal economy. Their structure is complicated,

and furnishes us with almost as much skill and design in their workmanship, as any part of the animal body. Here we find two classes of vessels, each performing their proper offices, woven into a beautiful and fine network, and sustained by ribs running in various directions, so as to give the best possible support to so delicate a structure. The different sides of the leaf also, perform different functions; the lower absorbs water and carbonic acid from the atmosphere, while the upper exhales the water, together with a variety of other gasses, but especially oxygen.

The first chemical change which seems to be completed in the leaf, is the decomposition of the carbonic acid of the sap, by the elimination of oxygen and the retention of carbon. This is effected in the green substance of the leaf alone, and is very similar to the respiration of animals. The change, however, can only be accomplished by the aid of a strong solar light, and hence it is only during the day that the process is going on. At night the action is reversed; oxygen is absorbed, instead of exhaled, and, entering into combination with the gross carbonaceous materials brought during the day from the roots, combines with them, and thus enables them to circulate through the fine vessels of the leaf, until it escapes, or is thrown off, and the carbon left in the greatest possible state of disintegration. Here an action is performed the reverse of that which takes place in the animal; in the one the carbon is added in an assimilated state, while in the other it is thrown off from the system. Both are beneficial in the economy of nature, for while the animal is constantly loading the air with carbonic acid, the vegetable is not only absorbing it, but it is throwing off a sufficeint quantity of oxygen to restore the equilibrium; so beautifully are the various departments of nature, united into a common whole. Indeed the dependence of function is so great between the animal and vegetable kingdoms, even in respiration, that the one could not exist without the other. Destroy the leaves of plants, and the constitution of the atmosphere would be broken up, the operations of nature would be suspended, and chaos would again sit in gloomy solitude brooding over the whole.

After the sap has been sufficiently elaborated in the leaves, it returns, through a different set of vessels from that by which it ascended, depositing in its course the various structures of the plant. The powers which causes it to descend with so much regularity, are involved in nearly the same obscurity with the ascending forces. Some suppose

that the evaporation of water from the leaves, during the day, elevates the sap, by a kind of suction, and that gravitation causes it to again descend; but this explains nothing, for both forces operating at the same time upon the same fluid, must either keep it stationary or accumulate it in obedience to the stronger power.

Writers on vegetable life differ in opinion in relation to the vascular structure of plants: some affirm that the fluids pass in various directions, through a kind of common cellular tissue, while the others think that the sap passes to and from the leaf, by means of the same vessels. Neither of these are perhaps right. Nature always carries on her work, it is true, by the most simple machinery, yet it is contrary to sound philosophy to suppose that different fluids pass in opposite directions through the same microscopic channels. If this were true, the soluble materials of both would be blended into a common mass. The truth is, there are two sets of vessels; the one conveying the sap from the root to the leaf, while the other carries it to the twigs, inner bark, and immediate surface of the wood for the purposes of nutrition. During last summer I made several experiments on vines, with colored fluids, to test the truth of this opinion; but, although I commenced too late in the season to ascertain all I wish, still I obtained enough to convince me that the former theories cannot be sustained. I am persuaded that with fine glasses, I shall be able to demonstrate, during the next summer, the existence of two sets of vessels in the stem of a leaf, each conveying its peculiar fluid.

The first deposit of sap is called *cambium*, and is divided into two portions; the one peculiar to the wood, and the other to the bark, constituting the external concentric layer of the alburnum, or white wood, and the inner, or *liber*, of the bark. The cells of this substance is gradually filled by the gummy portions of the sap, which is eventually changed, by a chemico-vital action into starch, sugar, or wood, according to the manner in which the elements are arranged, for one or all of these products may be formed out of pure Gum Arabic, however much box-wood may appear to differ from sugar, or starch from gum.

But vegetables perform various other functions, such as secretion and excretion, by means of special structures, or modifications of vitality in different organs. Oily, resinous, and acid secretions are of this cast; some of which are retained in the vegetable, while others are thrown off as foreign agents. Occasionally plants appear to use such secretions as weapons

of defence, in the same manner that the scorpion or viper use the poison with which they are furnished. The nettle* is of this species. The poison of this vegetable is secreted in a kind of sack, which terminates in a small hollow filament, or needle-like process, so that the least pressure will collapse the bag and cause its contents to flow into the skin or other part acting upon its point. It is to the secreting power of plants that vegetables owe their medicinal properties.

Plants probably discharge whatever is noxious in their structures from their roots, and hence the soil is rendered more or less sterile by continued crops of the same vegetable. Many of the fungi not only cease to grow upon certain spots, but they also destroy the grass in their immediate vicinities. This probably causes the phenomena of what is termed fairy rings, or circular barren spots in pastures and meadows where vegetation is frequently the most prolific.

It would be interesting to pursue this pleasing subject still further, but time will not permit. Enough has been said, perhaps, to give some idea of the phenomena of life in plants; a department of philosophy which is too much neglected. Should this hasty and general sketch be interesting to the readers of the Magazine, I may again call their attention to the same subject at a future period.

Art. II.—A TRAIT OF FRONTIER WARFARE.

The political peace and domestic security; the wealth of arts and inland commerce, now enjoyed throughout the Mississippi valley, are the fruits of labors, which with all the light thrown by history on its early settlement, and the condition of the country up to a very recent period, are hardly known, and perhaps can never be fully comprehensible, by the emigrant of the present day. The pages of national annals can embrace only the vast efforts of the combined population, whether tranquilly enhancing their prosperity, or acting upon the field of battle. Private toil and enterprize; the daring, the industry, the ability, the virtue of individuals, except of a few, whom circumstances placed in front of their co-laborers, must

* Urtica Dioica.

forever be forgotten or live only in the traditionary stories, which are heard at the firesides of their happy descendants. How many volumes might be filled, with the adventures of those who, with the axe and the rifle, made this beautiful country habitable by an enlightened and refined people!

Much more in the struggles of a few, for life and its enjoyments, when we perceive their motives and each particular step, towards the attainment of their objects, are the sympathies aroused and attention concentrated, than in the operations of great masses for identical purposes. History engages the mind; biography touches the heart. From this, we learn to feel for the past; from that to meditate upon it. The former we view as a mighty and confused asssembly, moving at a great distance; the latter presents to us one, whom we see face to face; whose voice we seem to hear as he stands before us.

Those, whose taste will admit the truth of this parallel, will find in the few following pages, a narrative of an adventure, which in every particular, may be relied upon as authentic. Credence will be readily accorded, as there is nothing impossible in the facts; and if a little amusement or instruction are found in them, the end of their publication will be answered.

In the autumn of 1812, the left wing of the north-western army, under the command of General Winchester, was encamped at the junction of the Auglaize and Maumee rivers, six miles below old Fort Defiance. As the season advanced, the weather became severely cold, and navigation was closed. The icy chains so long confined the streams, that provisions began to fail in the camp: and the same stern tyrant of the north, that cut off the supplies, assaulted fiercely the temporary shelters which the troops had constructed against his attacks. They were only huts rudely put together, with wooden chimneys, and it can hardly be supposed, the luxury of a window. Some of the horses died of hunger, and the rest were in consequence, sent away. For two weeks, the men had been without bread, and suffering every other privation, which the nature of their duties and the rigors of the climate imposed. Numbers were thinly clad and without shoes, which were substituted by raw-hide mocasins; the only available material for the purpose, if that could be so called,which did not exclude either air or water.

An unexpected thaw occurred in the latter part of December, and the sudden rise of the rivers carried off most of the canoes, which had been hewn for the purpose of descending

the Maumee; but at the same time a quantity of flour arrived to cheer the drooping spirits of the troops. Thus refreshed all became anxious to advance, although nearly every facility which prudence and industry had provided, had been lost from the several causes already mentioned.

General Harrison was supposed at that time to be with the main division at Upper Sandusky. The British General, under the impression that the Americans had gone into winter quarters, disbanded most of his Indian allies, and near the Rapids the force of the enemy was then reduced to an inconsiderable number. At this juncture General Winchester was anxious to communicate with the commander in chief, as he had determined to proceed in advance of his present position, to the Rapids, distant about forty or fifty miles. It was understood that abundance of corn was standing in the neighboring fields; which consideration alone, was sufficient reason for the movement, before the supply of flour on hand should be exhausted. This, however, could not be effected without the knowledge of the enemy; support from the centre and right wings was deemed necessary, and to secure it in time, a messenger had to be sent.

The duty could not be performed without great hardship and danger: it was one also of important trust, as on the faithful execution of it might depend the safety of the entire left wing. A cadet, attached to the first regiment of Kentucky volunteers, who had on previous occasions been employed by General Winchester, for the performance of confidential business, was selected for this errand. Being called to headquarters, and the wishes of the General made known, he embraced with alacrity the opportunity of showing his zeal in the cause. Mr. C. was then just nineteeen years of age. The General signified his satisfaction in his acceptance of the task, and proceeded to state that the message he should bear to General Harrison, as to the particulars of the movement proposed with the division under his command, would be entirely verbal. A brief note of introduction would be handed him, in which General Harrison would be referred to him for information. General Winchester stated in substance his intentions as already explained; with the addition, that as soon as his advance towards the Rapids should become known to Proctor, he would begin to re-assemble his Indians and attack him. It was hoped, however, before the enemy could effect this, that reinforcements from General Harrison, would be sent to sustain the left wing in its new position. To ask this aid was the design in sending Mr. C.; and speed as well as secrecy were duly enjoined.

Among the soldiers was one, named Abraham Ruddle. He was a native and hardy son of the soil, remarkable for every quality, which, in the arduous service of border campaigns, was most requisite for the ranks. His frame was powerful, with large bones; muscular without fat, and almost gigantic in stature. Having physics cast in such a mould, though nearly fifty winters had saluted his person, he appeared in the prime of active manhood. From infancy inured to privation, strife and peril, his fortitude and dauntless energy, gave adequate direction to his superior bodily powers. In his youth he had been taken prisoner by the Indians, in Kentucky, and was retained among them fifteen years; during which time he had ample opportunity to observe their habits, and learn their arts in peace and war. This individual, for his tried fidelity, his capacity of endurance, and particularly his knowledge of the country, was chosen as a guide.

On the morning of the thirty-first of December, the young cadet and his stalwart companion, were prepared for the journey. The latter carried his trusty rifle; which, if it were not equal to Satan's Norwegian pine, might still defy the strength of common men to bear with ease. His knapsack was stowed with homely fare, sufficient for three or four days, and some leaden pills for any foe who might cross his path. The other, although vigorous for his years, deemed it prudent to sustain only the burden of necessary articles. Armed with a musket, he filled his pockets with cartridges, to save the inconvenience of a cartouch-box; and strapped on his blanket, envelloping his provisions and a little comfort for the dreary pilgrimage. Being equipped, he reported himself to the General, and received from him a letter which was carefully secured in his bosom; and with a few kind words of advice and encouragement, and an order to join the left wing at the Rapids, with men and supplies if possible, on the tenth of January, he summoned his guide and departed.

The proposed route was by Fort McArthur, situated in a south-easterly direction about eighty or one hundred miles, and thence to Upper Sandusky, supposed to be fifty miles farther to the east. Two-thirds of the whole distance, the country was a forest, unmarked by the hand of civilized man, and without a path through its wilderness of shade. Streams swollen with rains, frequently intersected it and swamps, where the vegetable ruins of ages were accumulated, presented obstacles seemingly insurmountable. While nature had made the passage of the white man through this region arduous, the presence of hostile savages, lurking in its recesses, burning

with revenge for the recent destruction of one of their villages, and thirsting for expiatory blood, caused the attempt to appear desperate rashness.

Ruddle led the way, and Mr. C. followed. To the sturdy and time-tried soldier, the expedition possessed nothing of a character to create any unusual excitement, and with dogged energy he pushed forward at a round pace. But the juvenile messenger discovered, in the prospect before him, matter for serious thought and powerful emotions. A few hours might find him in the hands of a barbarous enemy, who never spared their prey. The way was long and trackless, and there was no compass to direct his steps with certainty: the ground was treacherous from the melted ice, and the day raw and gloomy. Withal nevertheless, the hot blood of youth ran through his veins, and while he turned his back upon his friends, with doubt of ever seeing them again, his pulse beat high, and his bosom swelled with the consciousness of serving faithfully them and his country, and the bright hope of well-deserved honor, cheered him boldly on.

It was still an early hour when the travellers lost sight of the camp. The Auglaize was then skirted with thick groves, through which they soon passed, and entered upon the oak-glades and rolling prairies. The trees stripped of their verdant mantles, and spreading their naked arms abroad against the grey vault of heaven, seemed in that desert spot, like skeletons in nature's vast sepulchre. There was neither song of birds, nor the echo of rural toil. No work of the rudest art; no remnant of a cultivated soil; no graceful smoke curling in the distance, indicated the proximity of any human being. All was lifeless, dreary and desolate. But this repulsive scene made the pilgrims, who, under the discipline of the camp, might have remained strangers, soon acquainted with each other, and mutually agreeable companions. With the surmises upon their failure or success, which seemed nearly balanced, they found themes of conversation to pass away the hours, which would else have rolled on with painful tardiness. When the sun, scarcely visible through the shrouds of mist that hung upon the atmosphere, had past the meridian, they paused for the first time, and without sitting down, appeased their appetites, sharpened by severe exercise, with a few mouthfuls from their wallets, and with a draught of cold water, proceeded with renewed alacrity.

Night at last came on and weariness as well as the obscurity which was spread around, determined the soldiers to halt on the borders of the black swamp. They had advanced

twenty-five miles. The elder struck a light, and gathering some brushwood made a bright fire, which sparkled invitingly. Seated on a log they dried their feet and having eaten a scanty supper, as the length of time they should be obliged to travel, made frugality in their diet imperative, each retired to a distance from the friendly blaze lest some lurking Indians should be attracted by its light. At the roots of separate trees, they collected some bark and spreading it on the ground to keep off the moisture, covered it with a blanket and laid down to sleep. The welcome spirit ere long visited their solitary beds and under his downy wings toil and danger were forgotten. But the chill breath of the season awoke them both by midnight; and adding some fuel to the fire, they were again sufficiently warmed to return to their bark couches, and thus reposed until dawn.

The morning light was retarded by heavy clouds covering the entire sky. Abraham predicted a snow-storm and he had just resumed the way, when it began to fall rapidly. At one o'clock they approached the old Ottawa Town, near Blanchard's Fork of the Auglaize river, which in the preceding summer, had been destroyed by the American troops. The snow was already six inches deep and was falling so thickly that objects but a few yards off, were entirely obscured. A large body of Indians was said to be encamped at the distance of about a day's journey, and there was reason to suppose that some of their scouts might be hovering around their former homes, for which their attachment is well known; or visiting the graves of their fathers, which consecrated the place; and this consideration caused Mr. C. and Ruddle to reconnoitre cautiously before they entered it. They accordingly made a circuit of the town to ascertain, if possible, whether there were any recent trails leading into it, and although none were distinguishable, they went in slowly and with extreme watchfulness. But no savages were near: a two year old colt, straying among the ruins of the village, was caught by Abraham, but it had never been broken to the saddle and was released. He next observed something more worthy of notice, a few stalks of corn standing near a very large tree: having pulled the ears, he followed his Indian perception, and began to clear away the snow at the roots. Digging up the earth, some bark was discovered a little below the surface, which having been removed, his hopes were realized by the appearance of some excellent Irish potatoes. These could not be eaten then, but were extremely acceptable; as many as could be carried were put in the knapsacks; and a

new-year's dinner was made of a part of their first contents, which had then been reduced very considerably.

Thus refreshed and re-supplied, the messenger and his guide quitted the Ottowa ground and labored onward. The depth of snow was a great impediment to a rapid advance; their feet were clogged with it and the continued fall, increased the difficulty of walking every hour. At sunset, with all the efforts they had made, they were but fifty miles from the camp. A fire was built and they sat down to a supper of half-roasted potatoes, which even without salt were very palatable. The genial heat prepared them for slumber; and having made arrangements as on the preceding evening they stretched their wearied limbs and with a few interruptions from the flakes that melted on their faces, enjoyed a sweet oblivion from care, until the morrow.

The Indian trace, which the indefatigable pedestrians had followed during a part of the previous day, was completely hidden by the snow, which continued to fall without abatement. In pursuing their course the difficulty became appalling. Darkness visible would have been preferable to the universal white, through which they were obliged to grope their way. Every object above, around and beneath wore the same dimly dazzling appearance. They found at each step some hidden obstacle: bushes bent down by the weight of the descending element, tore their leggins and caused them frequently to stumble and fall prostrate. The usual guides to the accustomed ranger of the wilderness, were all enveloped in the blanched shrouds which were thrown around them, from the narrow track of man or beast on the ground, to the effulgent pathway of the sun in heaven. The only means they possessed of determining the proper route, was to stop frequently and remove the snow from the trunks of the trees, and by the growth of the bark, which is thicker on the north side, to ascertain the cardinal points. Without waiting a moment for rest or refreshment, they waded with unspeakable toil until arrested by the shades of night; and then estimated their progress at about one mile an hour.

The wanderers camped in the swamp. They made a supper, by a little fire, of all that remained in their knapsacks; and having no spot to spread their blankets, placed their backs against a tree, and courted repose. The cadet, from fatigue, and the unwholesome half-cooked potatoes he had eaten, became sick: excessive nausea long unnerved him until it operated to his relief. The iron-framed Ruddle, if not equally

exhausted, was by no means insensible to the effects of three days' arduous marching. Their situation became a matter of serious discourse. Mr. C. still felt all his former anxiety to execute the commission entrusted to him; and amid his own sufferings, had constantly in mind the condition of his fellow-soldiers, who relied upon his energetic despatch on this errand, for the safety, the liberty and the lives, perhaps of all. The generous and sturdy veteran at one time proposed to leave his young commander where they had halted, and proceed alone to the nearest human habitation, supposed to be about fifty miles off; and thence send some one back to his assistance. But this proposition he had a double reason to reject. He might perish with cold and hunger in his solitude; and he could not brook the idea, while the ability to move a limb remained, to omit any exertion in the fulfillment of his undertaking.

At daylight on the fourth day, the exhaustless clouds still sent their rushing tribute to the earth: it was two feet deep. They started on once more. Occasionally, a furrow indicated the course of a wolf: but they saw no game, and their last mouthful was consumed. In some places, the younger pressed forward to the waist in snow; the other's length of limb made his progress less difficult. Their route was now fixed by the course of a small stream, a branch of the Auglaize, which they ascended. The weather had become much colder; and where the dead water was frozen, they were enabled to advance with comparative speed. The ice however was not very firm, and Mr. C., being the lighter, led the way, while his weighty guide followed at a respectful distance. The former frequently broke through, which was a signal for Abraham to make for shore; while he scrambled out, by throwing himself flat, and by degrees mounting again on the ice. To effect this often required several attempts, when the edges were thin: and the mingled pain and numbness, caused by the water, made the efforts of course more hazardous and prolonged.

The enfeebled men were excited about noon, by the appearance of a flock of turkeys ahead; which, like themselves, unable to wade through the snow, were driven to pursue their way upon the frozen creek. They were chased by Ruddle, who shot one, but the rest unfortunately took flight. The cadet called a halt; and a few sticks, hastily collected, were soon in a blaze, and the prey was prepared for dinner. It was duly turned round and round, until fit for consumption; and then honestly divided between the two. Abraham ate

with an excellent appetite, and well picked bones were in a few moments, all that remained of his moiety: but the other could taste only a few mouthfuls; and sticking the remainder on his bayonet, again led the way. The sinuosities of the stream considerably increased the distance, while it extenuated the labor of the journey. In the evening they rested as before. The fifth day came, and twice in the course of it, Mr. C. divided his morsel of the turkey with his hungry guide.

On the sixth, they went on without food; and still with unflagging zeal; though it would seem, that human strength would have been unequal to the trial of all they endured. Yet the spirit which first animated them, and hundreds of other brave men, who sustained their country's honor, guarded her territory and shielded their homes, from foreign invaders and their savage allies, could never be daunted, while a vital drop ran in their veins. Late in the afternoon, the companions in hardship, reached Fort Findlay, an old deserted block-house, situated on the creek which they had been ascending; they did not stop there, but walked till dark. Setting fire to a dead beech, they expected to be able to push it down, when partially burned, and beside its fallen trunk to keep warm all night. In this however, they were disappointed, being too weak to effect it; and wrapped in their blankets, they crouched near the roots, and kept up a small fire with the decayed branches, as they burned off from above and fell to the ground.

Again with the seventh dawn they resumed their march, and quitting the course of the stream, struggled as before through the snow. The continued fasting became intolerable, and the gnawing sensation was partially appeased with slippery elm-bark which was cut from the trees. Ruddle's feet were frost-bitten, and the acute pain was so much increased by the rigid shoes which he wore, that he threw them away; and taking off his buckskin leggings, made a rude pair of moccasins, which afforded some relief. The cold grew intense, and both experienced actually as well as consequentially increased sufferings. After the first twenty-four hours, the abstinence from food was more endurable; but the snow, as is well known, causing violent cramps if taken, the want of water was particularly felt, and their thirst burned insatiably.

Thus to the evening of the ninth day, anticipating every moment, that their little remaining strength would fail utterly, the faithful soldiers moved on, and were then within five miles of Fort McArthur. It may be remembered, that the distance thither, from the camp at the Maumee, was supposed to be about one hundred miles. How much the course they were

obliged to take, increased the journey, may be estimated from the time consumed in making it. Here, to their great joy, they met some soldiers belonging to Fort McArthur. They were on the way to Fort Findlay, with a drove of hogs, and intended to re-occupy it. The weary travellers were welcomed with great kindness, and the escort halted to give them food and stimulants, without which probably they might not have been able to walk an hour longer. After a little rest, however, they continued towards Fort McArthur, which they reached after dark. General Tupper, who commanded it, received his guests with the warmest courtesy, and provided every accommodation which his quarters afforded, expressing his astonishment at their courage and perseverance through so long a period and so many trials.

That night they slept soundly; and so welcome did those few hours of rest seem, after their protracted and various privations, that for the time, a better recompense could not have been offered. The young gentleman hoped to be able to proceed on the next day to General Harrison in person; but he awoke with a fever and unable to rise. Covering General Winchester's note in one under his hand, stating the causes of the delay and his own detention, he placed the despatches in the hands of a horseman, and sent him forward to Upper Sandusky. The veteran Ruddle, was sufficiently recruited; and was started back to meet General Winchester, at the Rapids, with provisions and a small detachment ordered by General Tupper.

In a few days Mr. C. was sufficiently recovered to travel, and was furnished by General Tupper with a sled, drawn by two stout horses and a yoke of oxen, for the purpose of rejoining the left wing, which he supposed to be at the Rapids; where, in fact, General Winchester had arrived on the tenth of January. This journey, though of less difficulty than that performed on foot, was exceedingly laborious. There was no beaten road, and the earth being soft before the snow fell, continued so when it was covered. Fifteen or twenty pole bridges were constructed on the way, and the point of destination was thus reached in about four days. General Winchester had left the camp under the charge of General Payne, and advanced to Frenchtown, to sustain Colonel Lewis, after the gallant action of the eighteenth, in which a body of the British and Indians had been completely defeated. On the twentieth, General Harrison was at the Rapids. He was apprehensive that an attack would be made upon Winchester from Malden; and in order to sustain him, with reinforcements, despatched

a messenger down the river to meet an Ohio battallion, then hourly expected, and turn it directly to his new position.

Before dark, Mr. C. overtook this corps, commanded by Major Cotgreve: it was several hundred strong, and had two pieces of field artillery. In company with another young Kentuckian, who had a pack-horse, the cadet pushed on, and reached the settlement of the Bay, within ten miles of the river Raisin, on the afternoon of the twenty-second.

On the morning of that day, it is well known that the disastrous battle of Frenchtown took place. General Winchester was defeated by Colonel Proctor. The base and savage conduct of this officer, in delivering the prisoners to the indiscriminate massacre of the Indians, has stamped his name with perpetual infamy. Officers and men were given up to the tomahawk and the stake, when the terms of surrender had been the protection of their lives and security of their property. At the Bay, Mr. C. met several soldiers who had escaped the general slaughter, and were flying half-naked from the dreadful havoc of their comrades. To one, he gave up the pack-horse, with directions to hasten to the Rapids, and bear General Harrison intelligence of the defeat. The whole population of Frenchtown was hurrying abroad for safety, and the last family, moving towards Ohio, implored the aid of Mr. C. and his companion to escape the Indians, who were supposed to be in pursuit.

Their only choice was to return towards Winchester's camp at the Rapids, and with the wife and children under their care, retraced their steps; though, from the fresh incumbrance, very tardily. They expected every moment to meet Major Cotgreve's battallion, and have the benefit of its escort; but night came, and to their dismay and surprise, they were obliged to camp alone. Anticipating constantly, the Indian war-whoop, shrieked forth with all the ferocity, which the blood of so many victims had just excited, as the prelude to the butchery of themselves and the helpless beings, whom they guarded, they watched in agonizing suspense until the dawn. Happily it came without the foe, and they proceeded, and soon encountered baggage-sleds, artillery cut from the traces, and every indication of panic. They belonged to Major Cotgreve's corps; which, learning the dreadful news, had left every thing and fled. Not a human being was in sight; and with increased alarm the little party continued its retreat.

About an hour before sun-down, they reached the Maumee and there found a wounded soldier. The poor fellow had gotten thus far, by the aid of a stick; had lain out all night,

without food, fire or blanket, and was expecting to perish in loneliness. He was put upon the sled; some food given him and his life fortunately saved.

At last, when approaching the Rapids, hoping to have rested at General Winchester's camp, they discovered a light, and it soon proved that the whole was on fire. The huts, head-quarters and provision-houses were all enveloped in flames. This appeared a certain proof that the enemy was at hand; and the fate of those whom they had captured at Frenchtown was instantly expected. But reconnoitering and discovering no one, they proceeded, and crossing the river, encamped about four miles on the road to Fort McArthur. General Harrison, having few effective men, had retired from this position, in anticipation that the British might fall upon it, and established his camp at the distance of eighteen miles. Thither Mr. C. and his defenceless party directed their steps. The rain was falling rapidly when they resumed the course, and the streams were considerably swollen; but, after much severe toil, they reached the Portage, General Harrison's position, which he had fortified. The same evening Major Hardin presented the young gentleman to him, and for a season his labors ended, with some merited compliments to his daring spirit, untiring activity and gallant conduct. R.

THE RECALL.

Come back to me! Oh! I have heard
How lone and sad thou art:
Come back! I will not breathe a word
To wring thy fickle heart.
As ever, 't is enough to know
And gladly do thy will;
Not more in joy, nor less in wo,—
False one, I love thee still.

I might revive, as mem'ry must
The hours we fondly met,
When in thy honor I could trust,
Nor dream thou could'st forget!
Forgive me! thoughts that long have burned
Their anguish must reveal:
The meanest thing too basely spurned
Will writhe while it can feel!

Canst thou be happy, while a thought
Of thy forsaken home,
Recalls the pure content it brought,
When thou wast lured to roam?—
A wife, whose being thou couldst claim
And feel it all thy own:
And little ones, who lisped thy name
Ere other word was known!

What pleasures bring thy boasting friends
Which may not here belong,
If conscience with their presence blends
Another's constant wrong?
Full well they know to smile and fawn;
And flatter nobler men:
But let one selfish hope be gone,
Where is their friendship then!

The world 's a flood of passions dark
Which roll through hopeless space,
And one who leaves affection's ark
May find no resting-place.
Come back! Aye, whether thou, in vain
Hast wandered like the dove,
Or bear'st a sign of bliss again,
Be welcome in my love!

What homage did thy lips oft pay
A beauteous face and form;
Bright flowers, but earliest swept away
Before affliction's storm.
Thou canst not find the sunny brow
Nor beauty still in me;
Yet what is changeless, take e'en now—
A heart which dotes on thee!

Come back to me! a single tear
Shall wash away the past;
A single smile be it sincere,
May bless me to the last.
O yes! this injured, stricken breast
Shall bear no thought of ill;
Come back to me, thy shame confessed,
False one! I love thee still!

F. R. J.

Art. III.—CINCINNATI.

A CITY HOTEL—A CITY HALL—A RURAL CEMETRY.

In the general prosperity which now prevails in Cincinnati, an argument may be found for giving some attention to certain improvements of a public character, which are required as well for ornament as utility. Of these, it may be said, some can be made at the *present* on better terms than at any *future* time; and of all, that to some extent they create the means to pay the cost of execution. As a general rule, expenditures which are made, either by public or private munificence, for the embellishment of a city, exert a beneficial influence upon the prosperity of that city. There is one class of improvements which enlarges business facilities and aids in opening new channels for commercial and manufacturing enterprize. There is another which exerts a very strong influence upon society, by elevating the standard of taste, purifying the heart, and opening new sources of mental enjoyment. Both are entitled to consideration, so far as they invite persons and capital to the city, or increase the social and moral enjoyments of the community. The following remarks have no claim to originality, either in matter or manner. The design of the writer is to contribute something, however feeble, towards quickening public attention on these important matters.

First of a City Hall. Every one feels the necessity of a public building for the accommodation of the municipal authorities — the public offices — the preservation of the public records, and the convenience of the citizens when called together on public occasions. At present the Mayor occupies an inconvenient room in one part of the city; the council hold their meetings in another; while the city clerk, the city treasurer, the city surveyor, and the city marshall, are but ill accommodated by rooms which in cases of fire, are wholly inadequate to the preservation of the records which pertain to these offices. And if, as is frequently the case, public business make it necessary for the citizens to assemble in town meeting, there is no room in the city suited to their accommodation. A City Hall, well planned, and built at some central point, would supply these deficiencies. It would bring together the scattered municipal authorities, give them greater facility and unity of action, preserve beyond the reach of casualty, the public records, and furnish a hall for public meetings, both spacious aud convenient. It might be made moreover, highly ornamental to the city, and in the impulse which the expendi-

ture necessary to its construction would give to the mechanical industry, confer pecuniary advantages upon a worthy and respectable portion of the community. The cost of a work adequate to the present as well as future exigencies of Cincinnati we have not the data for estimating. Suppose it should be one hundred thousand dollars. What is that sum for the resources of the city in the next ten, twenty or thirty years? And it is well known that the city can at any moment obtain the necessary funds at five per cent., payable at any distant time. But may not a plan be adopted — looking now solely to economy — that will greatly lessen the cost of this work. Suppose a quantity of ground were purchased, so situated as to accommodate not only the City Hall, but suitable for the erection around it of some seventy-five or one hundred comfortable offices, constituting the 'Inns of Court,' for the members of the Bar. It is obvious that if the site were a proper one, and the offices well arranged, and erected in a uniform and ornamental manner, that all the lawyers of the county might be assembled together, and the city council derive from the lease of the ground, or the rent of offices, an income that would greatly lessen the cost of the original purchase. There is no clearer proposition, than that the property around a splendid City Hall, thus situated, and thus arranged, would rapidly advance in value. Connected with an edifice of this kind, there should be, in reality, a public promenade. But this we despair of seeing in Cincinnati. We are too purely on what is falsely called the utilitarian system. Our neighbors of Louisville have different views on this point. The public authorities of that city have recently paid one hundred and twenty-five thousand dollars for a lot of ground, for the purpose of converting it into a public square. If that city has the enterprize to pay such a sum for a pleasant promenade for her citizens, is it not a reasonable presumption, that Cincinnati can afford to expend seventy-five or one hundred thousand dollars for a City Hall, indispensable as it certainly is to the business and accommodation of all classes of the community.

A City Hotel. Without any disparagement to the respectable hotels of Cincinnati, it may be safely affirmed, that she has not one of the magnitude, splendor and conveniences required. The geographical position of Cincinnati is such, as to bring to it annually a great concourse of strangers. The number is rapidly increasing with the general increase of the country, and the multiplication of the facilities of travelling. A Hotel, corresponding with the size, business and attractions of the city, has become of the first importance. At certain seasons

of the year, it is a matter of notoriety, that our public hotels and private boarding houses are full to overflowing, and that often times, strangers are prevented from coming to the city, or are hastened away, by the deficiencies in the means for their comfortable accommodation. Independently, however, of all other considerations, the pecuniary interest of the citizens generally, would be promoted by the immediate erection of a spacious and magnificent hotel. The increased expenditures made by visiters, drawn to the city by it, would, it is believed, in a few years, re-pay the cost of the building. Two of the most prosperous cities of the Union, New-York and New-Orleans, are in no small degree indebted for their prosperity, to the immense influx of strangers, who annually pay tribute to them. Cincinnati is eligibly situated for the enjoyment of similar advantages. Let her but possess herself of the necessary accommodations, and the concourse of intelligent, liberal and refined strangers who will annually spend a portion of the year in Cincinnati, will be increased almost indefinitely.

It is understood that an association is now forming, among some of the citizens, for the purpose of erecting, by a joint-stock company, such a hotel, upon the corner of Broadway and Front streets, the site of the old Cincinnati hotel, than which a more beautiful and eligible situation for such a building, is not to be found in the valley of the Mississippi. By connecting with this hotel, a suite of ware houses in the base ment story, it is demonstrable, we think, that the stock will pay from six to ten per cent. interest. Under such circumstances is it to be supposed that there can be a failure in the project? Certainly not. Every citizen who can spare even one hundred dollars from his business, should consider that he is consulting his individual, as well as the public interest, by becoming a stockholder in the proposed enterprize.

Rural Cemetry. Among the many public improvements called for in our city, there is none which comes home more directly to the feelings of all classes of society, none susceptible of producing happier moral influences, none which would do more credit to the taste and public spirit of the community, than a rural cemetry, suitably arranged and embellished, upon some of the hills which encircle our valley. What is there to prevent the early establishment among us, of a 'Pere la Chaise,' a 'Mount Auburn,' or a 'Garden of the Dead,' such as does honor to Paris, Boston or New-Haven? Nothing, it may be answered, but the want of a small amount of enterprize, in one, two, or half a dozen citizens. Twenty or thirty acres of ground, properly located, and of easy access, upon the high

lands around our city, enclosed in a substantial manner, laid out with convenient streets and alleys, and planted with trees and flowering shrubs, are all that is required to give us this most tasteful and desirable embellishment. The few thousand dollars which it would cost, without a doubt, would be promptly reimbursed by the sale of lots for family interment. Have we no citizen of taste, leisure and fortune, who is willing to enter upon this work, and by a little effort and the temporary use of an inconsiderable amount of capital, connect his name with an improvement which will give distinction to our city for ages? It is hoped there are many such, and that they may emulate each other in an early attention to the subject.

In forming a cemetry of the kind proposed, the more simplicity there is in the style of embellishment the better. A row of elms on the exterior, with a profusion of weeping-willows and rose-bushes planted along the streets and alleys, and around the burying lots, would be enough, and in good taste. The weeping-willow, in its appearance, and the associations which it calls up, is peculiarly adapted for a grave-yard. It is the first to clothe its long pendent branches with green leaves, in the Spring, and the last to yield them to the fitful gales in Autumn. Art and munificence could not confer upon a cemetry the charm that would be given it by a profusion of willow trees, the very aspect of which, when clothed in summer verdure, tranquillizes into sober pensiveness the wayward and turbulent feelings of the heart.

It may be asked, by the busy utilitarian, wherefore the profit of expending money in a new cemetry? There are enough in the city already, and for five dollars a man may purchase a spot in which to place his body after death. True, and acting on this principle, half that sum would pay a porter for casting our remains into the channel of the Ohio. But who that has his heart in the right place, would be content to lay the body of a relation or friend in the cemetry of a city, amid dust and noise, and the stir of business, if a garden of willows were at hand, where seclusion, and trees and flowers, hold their tranquil reign?

For one, I have much faith in the effect of a grave-yard. There is a power in it that at times will touch the thoughtless and the wicked, while upon the pure, and the cultivated, they exert a continued and active influence. It cannot be disguised that there are times when external objects sway with extraordinary power both the feelings and the intellect — when nature in her mysterious images, shadows forth to the imagination the untold realities of futurity. At such times, man loves to com-

mune with the sacred solitudes of the visible world: — he seeks rather than shuns the silent mansions of the dead, especially, if it can be done without subjecting himself to the gaze of the thoughtless crowd of a busy city.

It is a deeply rooted principle in our nature, that impels us to keep up certain relations with departed friends, long, very long, after they are consigned to the tomb. There is a melancholy pleasure in visiting their lonely abodes, and offering, over the green hillocks which cover their remains, those little tributes of affection which sweetened intercourse whilst they were with us. This communing with departed spirits, this lingering at the gates which shut out the living from the mysteries of the unseen world, is fraught with the holiest influences upon the moral portion of our being. It is often times far more touching than the eloquence of the pulpit — more effective than the teachings of the moralist.

Perhaps we cannot better excite attention to this subject, than by quoting the appropriate language and forcible arguments of a late writer, and traveller, elicited by a visit to the burying-ground in New-Orleans:

'BURIAL-GROUNDS, even in the humblest villages, are always interesting to a stranger. They are marble chronicles of the past; where, after studying the lively characters around him, he can retire, and over a page that knows no flattery, hold communion with the dead.

The proposition that 'care for the dead keeps pace with civilization' is, generally, true. The more refined and cultivated are a people, the more attention they pay to the performance of the last offices for the departed. The citizens of the United States will not certainly acknowledge themselves second to any nation in point of refinement. But look at their cemetries. Most of them crown some bleak hill, or occupy the ill-fenced corners of some barren and treeless common, overrun by cattle, whose preference for the long luxuriant grass, suffered to grow there by a kind of prescriptive right, is matter of general observation. Our neglect of the dead is both a reproach and a proverb. Look at England; every village there has its rural burying-ground, which on Sundays is filled with the well-dressed citizens and villagers, who walk among the green graves of parents, children, or friends, deriving from their reflections the most solemn and impressive lesson the human heart can learn. In America, on the contrary, the footsteps of a solitary individual, the slow and heavy tramp of a funeral procession, or the sacrilegious intrusion of idle school-boys — who approach a grave but to deface its marble — are the only disturbers of the grave-yard's loneliness.

But even England is behind France. There every tombstone is crowned with a chaplet of roses, and every grave is a variegated bed of flowers. Spain, dark and gloomy Spain! is behind all. Whoever has rambled among her gloomy cemetries, or gazed with feelings of disgust and horror, upon the pyramids of human skulls, bleaching in those Golgothas, the *Campos Santos* of Monte-Video, Buenos Ayres, and South America generally, need not be reminded how little they venerate what

once moved — the image of God! The Italians singularly unite the indifference of the Spaniards with the affection of the French in their respect for the dead. Compare the 'dead vaults' of Italia's cities, with the pleasant cemeteries in her green vales! Without individualising the European nations, I will advert to the Turks, who, though not the most refined, are a sensitive and reflecting people, and pay great attention to their departed friends, as the mighty 'City of the Dead' which encompasses Constantinople evinces. But the cause of this respect is to be traced, rather to their Moslem creed, than to the intellectual character, or refinement of the people.

To what is to be attributed the universal indifference of Americans to honoring the dead, by those little mementos and marks of affection and respect which are interwoven with the very religion of other countries! There are not fifty burial-grounds throughout the whole extent of the Union, which can be termed beautiful, rural, or even neat. The Bostonians, in the possession of their lonely and romantic Mount Auburn, have redeemed their character from the almost universal charge of apathy and indifference manifested by their fellow countrymen upon this subject. Next to Mount Auburn, the cemetery in New-Haven is the most beautifully picturesque of any in this country. In Maine there is but one, the burial-place in Brunswick, deserving of notice. Its snow-white monuments glance here and there in bold relief among the dark melancholy pines which overshadow it, casting a funereal gloom among its deep recesses, particularly appropriate to the sacred character of the spot.' *

There is much truth and pertinency in the foregoing remarks, and they are respectfully commended to the attention of the citizens of Cincinnati. A well arranged and handsomely embellished rural burying-ground, at some convenient distance from the city would afford a pleasant resort for all classes of society; — especially such as would wish the remains of their deceased friends, over which remembrance wakes and weeps, to be deposited in some secluded spot, whither innocence and timidity might constantly repair, and where they might commune with the departed, and scatter evergreens and wild flowers upon their graves. B. D.

* South West, by a Yankee.

EPIGRAM.

ROUGE.

An actress wanting common wit
In putting on her paint,
Proved when she tried a fainting fit
'T was not a fitting feint. J.

ART. IV.—ELASTICITY OF PINE LOGS.

THE discoveries of science are every day becoming more and more numerous and wonderful. We read a short time since of the experiments of a French chemist, who was successfully employed in making bread out of saw-dust—right good looking and well tasted bread. We are always glad to hear of a learned man who makes his bread, in any way. That however was nothing, compared with a recent disclosure by an eminent philosopher, of a new quality which exists in the fibre of the pine tree of our forests. This wood has been esteemed not only for its durability, but its lightness, softness, and the consequent facility with which it may be handled, or cut by the tools of the workman. It is very brittle, and splits more readily than almost any other tree. It has however been lately discovered to be exceedingly elastic, and we have no doubt that it will soon supercede the India rubber, as a material for over-shoes, and water-proof coats.

Mr. Audubon, the great American ornithologist, in the invaluable record of his remarkable adventures, has preserved the following excellent observations, in reference to the pine tree. After describing a particular location among the hills bordering on the Lehigh river, in Pennsylvania, one hundred and fifty feet in height above the water, and telling us that the logs for the saw-mills are cut on these elevations, he proceeds:

'In such an undertaking, the cutting of the trees is not all. They have afterwards to be hauled to the edge of the mountains bordering on the river, launched into the stream, and led to the mills over the shallows and difficult places. Whilst I was in the Great Pine Swamp, I frequently visited one of the principal places for the launching of logs. To see them tumbling from such a height, touching here and there the rough angle of a projecting rock, bouncing from it with the elasticity of a foot-ball, and at last falling with an awful crash into the river, forms a sight interesting in the highest degree, but impossible for me to describe. Shall I tell you that I have seen masses of these logs heaped above each other to the number of five thousand? I may so tell you, for such I have seen.'

As this is the description of a naturalist, and is one of those gratuitous supplementary contributions to our stock of general knowledge, with which the great ornithologist has been pleased to intersperse his biography of birds, we must of course consider it as a grave detail of facts, illustrative of the natural history of the pine log. It is no idle dream of the poet, or reckless exaggeration of the indolent tourist. We have it on

the authority of 'John James Audubon, F. R. S. S. L. and E. Fellow of the Linnæan and Zoological Societies of London:' &c.; who *saw* with his own eyes, the logs, tumbling from such a height, touching here and there the rough angle of a projecting rock, *bouncing from it with the elasticity of a foot-ball*, and at last falling *with awful crash*, into the river.'

The log which fell into the river with such an *awful crash*, must have been very heavy, and have been precipitated with great velocity: for it seems that it came with a force which was not only *awful*, and *interesting in the highest degree*, but which it *was impossible* for Mr. Audubon *to describe*. It must have come very fast; for it outstripped the narrative powers of one who has seldom found any thing too wonderful for his glowing and prolific pen. But the most singular fact is. that a log, going ahead like a streak of lightning, with awful, interesting, and indiscribable speed. should, on touching the rough angle of a projecting rock, *bounce from it with the elasticity of a foot-ball*, instead of being shivered into splinters—nay, that not only one log, but *five thousand* successively, should thus come bouncing from crag to crag, and falling with awful crash into the river, without damage.

If a pine log is capable of the elasticity of a foot-ball, we would respectfully inquire of some of the Philadelphia academicians, who patronise the ornithologist, whether a section of a pine log, a few inches in diameter, would not possess the same quality, and whether it would not be an improvement to cause foot-balls, for our boys, to be turned from this material? If a heavy log may be precipitated one hundred and fifty feet, and endure the collision of the rough angles of projecting rocks, without being riven into a thousand splinters, the boys would hardly be able to shiver a globe of the same material, by any force which they could apply to it; and if a log bounces with the elasticity of a foot-ball, we should think a sphere might perform the same evolution.

While we are on the subject of trees, we shall take the liberty of quoting a few lines from the description of the pawpaw, by the same accurate naturalist and able biographerof birds:

'It is found growing in all rich grounds, to which it is peculiar, from the southern line of our states, to central Pennsylvania, seldom farther eastward, here and there only along the alluvial shores of the Ohio and Mississippi. In all other places of like nature, you may meet with groves of pawpaw trees, covering an acre or more of ground.'

Here we learn, not that the pawpaw grows in all rich grounds, but in all *to which it is peculiar*—that is, wherever

suits it; and we are just as wise in regard to the locations at which the tree exists, after reading this description, as before. We are informed, that it is found from the *southern* line of our state to *central Pennsylvania*, but seldom farther *eastward*—how much farther *north*, it extends, is not shewn. We are told that it is found *only here and there* along the alluvial shores of the Ohio and Mississippi—an opinion from which those acquainted with the alluvions of the Ohio and Upper Mississippi would dissent; but the most ample amends is made for this mistake, in the concluding clause of the sentence—where the author, after having instructed us that this tree grows *in all the rich grounds to which it is peculiar, from the southern line of our states to central Pennsylvania, and here and there on the alluvial shores of the Ohio and Mississippi*, concludes with the information, that it also flourishes *in all other places of like nature*—that is, in all rich grounds to which it is peculiar, from our southern boundary to central Pennsylvania, and elsewhere, indefinitely.

If the question then be asked, where does the pawpaw tree flourish? the answer would be, South, North, or West—but not East, of central Pennsylvania, in all the rich soils peculiar to it—and *in all other places* of like nature.

Art. V.—REMARKS ON THE GEOLOGICAL FEATURES OF OHIO,

AND SOME OF THE DESIDERATA WHICH MIGHT BE SUPPLIED BY A GEOLOGICAL SURVEY OF THE STATE.

BY JOHN L. RIDDELL.

Over two or three ranges of counties, bordering on the Ohio river in the south-east third of the state, the land is considerably broken and diversified by rugged hills and irregular valleys. The Sandusky country, the Upper Scioto and Upper Miami countries, exhibit a remarkably level aspect. The immediate substratum of the regions lying on the Miami and its tributaries, so far as I can learn, seems to be an earthy and sometimes semi-crystalline limestone, alternating with calcareous shale or slaty marl. Its color is usually dark bluish and gray, and in numerous localities the mass of rock appears almost wholly made up of marine organic remains. In other

places it assumes a crystalline, or compact and even structure, being eligible for all the purposes to which transition limestones are usually applied; receiving a high polish, and exhibiting when thus beautified, a fanciful and varied aspect, depending on numberless sections of testaceous and coralline relics.

How deep into the earth this formation extends, I am not prepared to say. Neither am I apprized of its true relation to the coal measures east of the Scioto;—whether as it proceeds eastward, losing its calcareous character, it graduates into argillaceous shale or sandstone;—or preserving its identity, dips beneath the carboniferous rocks; or lastly, whether it is not equivalent to the Scioto limestone, which appearing occasionally in every part of the coal region, crowns some of the highest hills with the petrified remains of beings which inhabited an ancient ocean. If the last supposition be true, it is highly important that it should be known; for we might then reasonably expect to find the coal measures below it, throughout the western portions of the state.

The regions about the lower Scioto, the Hockhocking, the Muskingum and its tributaries, the Mahoning, Grand and Cuyahoga rivers, are mainly occupied by the *sandstone* and *carboniferous* series of formations. While on a tour of observation last summer, through the middle and eastern portions of the state, though unable to determine the western and northern limits of this group, I remarked the continuous occurrence of its different members along the whole course of the Ohio canal, from Portsmouth to Cleveland. The same formations, I am told, continue west of the Scioto into Adams, Highland and Fayette counties. In the counties of Franklin and Knox, they have come under my personal observation. No southeastern limit can be assigned, short of the Alleghany mountains.

The exhaustless quarries of freestone embraced in this group, within the boundaries of our state, are as yet, more highly valued by the architect than the Ohio limestones: but when these rocks crumble into soil, by superficial exposure, the earth yielded by the sandstone and its allies, is much less fertilizing in its qualities than that which is derived from calcareous strata. The former, indeed, may generally be greatly ameliorated by the judicious application of marls and other calcareous manures. The proper soils for such improvement, may oftentimes be as accurately indicated by a geological inquiry into the nature of the rocky substratum, as by patient chemical analyses.

The sandstone formation within our territorial limits, exhibits every grade and variety of structure, from the fragile, gritless clay slate, to the coarsest and strongest conglomerate rock. Its most inferior stratum perhaps, is a white, moderately fine-grained sandstone, sometimes variegated with red, and generally impregnated throughout with common salt, and other saline matters. Concealed, as it usually is, deep in the earth, its topographical distribution has been very imperfectly determined, while its real limits are unknown. From facts collected by Dr. Hildreth, it appears that the saliferous rock underlies or accompanies the coal measures, throughout the entire valley of the Ohio. He supposes, that since this rock is found to dip to the south in Muskingum county, it probably makes its appearance at the surface near Massillon. In my opinion, there are good reasons for this supposition. On Buel's map of Muskingum county, it is stated that the salt wells require to be sunk near four hundred feet lower, at the south line of the county than at the north, the northern wells being three hundred, the southern seven hundred feet in depth. The saliferous rock is here from twenty to forty feet in thickness. Before you reach the lake, a white sandstone crops out, very similar to this stratum in appearance, and probably continuous and identical with it. Being here superficial, the infiltration of atmospheric waters has doubtless long since removed its saline impregnation. If this be indeed the outcropping of the saliferous rock of the south, we have conclusive reasons for not regarding it as the only reservoir of common salt within our limits.

Fifteen miles east of Cleveland, on the lake shore, twenty feet above its surface, a well has been sunk through various shales and sandstones to the depth of six hundred and eighty-six feet, and is found to be productive of brine. On Scott's plains, fourteen miles north-east from Columbus, saline indications occur in the form of salt licks. On Duncan's plains, a few miles further north, a salt well has been sunk five hundred feet. I learned from the men engaged in boring, that after passing various slates, etc., they perforated fifty feet of a very hard, white saliferous rock. Respecting the strength and supply of brine, I could ascertain but little. I mention these facts, as demonstrating the extension of the salt formation further west, in that latitude, than is generally supposed. It is desirable that the saline indications in the western parts of the state, if any there be, should be carefully explored: — there being little doubt that the requisite attention to the thickness, inclination and mutual relation of rock strata, would enable

one to predict with much certainty, whether salt water could be reached by sinking wells in other parts of the state.

Beds of *bituminous coal*, seem to be almost co-extensive with the strata of shale and sandstone in which they occur. This invaluable mineral is distributed in the most lavish abundance, throughout the eastern and south-eastern counties of Ohio, from the head waters of the Cuyahoga to near the mouth of the Scioto. The problem is now one of great interest, and the day is not remotely future, when it will be invested with vast importance, to determine whether the coal measures are continued beneath the alluvial and limestone strata of the wide prairies and woodlands, which lie about the Maumee, Upper Scioto, and Miami rivers. A careful reconnoissance of the counties of Adams, Highland, Fayette, Delaware, Richland, Medina and Huron, might probably settle the question.

As a fact relevant to the subject, I will add, on the authority of Dr. Hance, of Columbus, that coal was found at the depth of thirty feet, upon sinking a common well through limestone, half a mile north of Marion.

At Bedford, fifteen miles south of Cleveland, near the bottom of a deep gorge, apparently channelled out by the waters of a perennial creek, through slate and sandstone, a stratum of *bituminous shale* occurs, near twenty feet in thickness. It is probably about one hundred and fifty feet above the level of lake Erie. This shale readily splits into broad plates near one eighth of an inch in thickness, is tolerably free from pyrites, is almost black, and upon casual inspection bears a striking resemblance to the argillite, or roofing slate, which is quarried on the Hudson river. The laminæ are often ornamented superficially, with here and there a rhomboidal, jet-black spot, possessed of a brilliant lustre, and embraced by a peculiar radiated structure. The Rev. E. F. Willey, of Cleveland, my companion in exploring this ravine and its vicinity, resolved to tile a roof with this material, by way of experiment. Mr. James S. Clark, the owner of this site, who is about to erect extensive machinery upon it, supposes when the water is low that steam engines may be supplied to great advantage with this inflammable shale, as a substitute for other kinds of fuel. Upon trial we found it to burn almost as readily as bituminous coal, losing one eighth its weight by the process, and leaving a residue which retains the slaty form. When the time comes that the citizens of Cleveland set about lighting their streets and public buildings with gas, I believe this shale will come into most valuable requisition; being admirably adapted for that purpose, on account of its mechanical structure.

The *clay slate* or *argillaceous shale*, is a fine grained, laminated formation, alternating in thick and numerous strata with the coal, the bituminous shale and the sandstone. Considered in respect to its wide and abundant distribution, it is an important member of the group to which it belongs. Particles of carbonate of lime sometimes intermingle with its argillaceous constituents, when it becomes a valuable marl for improving upland soil. More frequently it abounds with disseminated mites and masses of the golden sulphuret of iron, which, by decomposition when exposed, generates exhaustless beds of copperas and crude alum, products that will be turned to profitable account, whenever they receive the attention of manufacturing chemists. In several localities within the state, this formation embraces some of the most curious and wonderful of nature's mineral productions. Hard, lapideous concretions, exhibiting a radiating fibrous structure, and possessing almost perfect sphericity, are profusely imbedded in the argillaceous shale. A few miles north of Worthington, where they give interest to a dark and gloomy ravine, they vary from the size of a billiard ball to that of a stage coach. If the reader desire, he will find a particular description of these globes in the Western Medical Journal, No. 27.

Certain varieties of clay slate by disintegration give origin to beds of the most valuable clay. Such beds occur in the hill-side two miles north of Roscoe. This clay, which has the whiteness of chalk, and is perfectly free from lime and iron, is obviously adapted for the finer kinds of pottery. In the north-east part of the state, beds of plastic clay are of frequent occurrence.

In the regions of freestone, coal and salt, *iron ore* is an abundant mineral product. We meet with the red argillaceous oxide, the iron stone, and the nodular iron ore. The nodular variety occurs in Washington county, of a structure so fine and compact, as to render it of great value to certain manufacturers for the purpose of burnishing metals. Iron ore is said to be abundant in the counties of Wood and Huron, in a region which is generally supposed to be disconnected with the main ferruginous deposite. Judge Bailhache in his Gazetteer of Ohio, says that extensive beds of Spanish brown, or earthy red oxide of iron, have been discovered on the banks of the Big Walnut, in the south-east part of Delaware county. I think we should be encouraged to seek for the ores of this most valuable metal, in tracts of country where they are yet unobserved. Great service might be rendered the state, by carefully analyzing the ores from the different beds, and

indicating the best materials at hand required for fluxing them.

The *conglomerate* variety of *sandstone* contains smooth, rounded, quartzose pebbles of various sizes, mixed with particles of sand. It is generally superimposed upon common sandstone, and consequently often occupies the most elevated tracts of country. When piled one upon another in wild disorder by the rude masonry of nature, these rocks not unfrequently wear a most rugged aspect, or put on an air of sublimity. Many a bold and towering precipice may be seen, in following the Ohio Canal through Licking Narrows. The unique elevation of land between Painesville and Cleveland, called the Little Mountain, possesses the same geological characters. I have noticed this conglomerate rock in the hills about Akron, perhaps one hundred feet above the Summit Lake, and consequently near four hundred and ninety-five feet above Lake Erie. The sand resulting from its natural or artificial disintegration, is remarkably pure silex, and is found to answer well in the manufacture of flint glass and fire bricks. The brick makers of Cleveland have been in the habit of hauling large quantities of this sand in wagons from the Little Mountain, not being aware that it might be obtained by canal from Akron, at one fourth the expense.

The *limestone* which is met with in Franklin county on the Scioto, is probably identical with that which occurring in the highest hills, overlies the coal measures in the eastern and northern counties. In some localities it is capable of yielding a most beautiful gray marble. There are reasons for believing that the *Flint ridge*, which commences in Coshocton county, and pursues a south-west course to near the Ohio river, is referable in its origin to the same geological epoch as this limestone. They are most probably equivalent formations, judging from their position and from the marine relics entombed in both. It is not improbable, as suggested by Mr. Featherstonhaugh in reference to the calcareo-silicious formations of Missouri, that thermal waters surcharged with silex may have been ejected from submarine depths, and mingled locally with the waters of an ocean, where the deposition of carbonate of lime was quietly going forward. The subsiding flinty matter would then probably envelope the same species of zoophytes and testaceous animals as those immured in the neighboring contemporaneous limestone. The beautiful crystals and precious stones, the valuable hones, and especially the buhr millstones yielded by the silicious deposite of Ohio, render it both interesting and important. It is a desideratum to

determine certainly whether it is an equivalent of the Scioto limestone, or is really a distinct and independent formation.

Lead ore is said to occur plentifully near the source of the Walhonding, Coshocton county. If so, it is most probably embraced in the silicious deposite, and associated with other interesting and valuable minerals. Dr. Hildreth mentions a white lithographic limestone, as occurring about the head waters of the Little Muskingum, over a tract of country eight or ten miles square. This deposite will doubtless prove highly useful to the architect and the artist: it is therefore desirable that its true distribution should be carefully determined.

Much of the superficial area of the state is occupied by commingled clay, sand, gravel, rounded pebbles and bowlders, which have evidently been distributed and left by currents of water. They constitute what some denominate the *diluvial deposite*, others the *erratic block group*. Though diluvial action has recorded itself in great and permanent effects, in almost every known country on the face of the globe, geologists are yet seldom permitted to contemplate these effects on a scale so magnificent, as where exemplified in the wide prairies and contiguous forests of Ohio. Fragments of all possible varieties of primitive and secondary rocks, of every hue, and every size, from the mite of sand made visible by the magnifier, to the immovable mass of granite; all characterized by rounded forms, consequent upon long continued attrition in water, mingle disorderly together, and constitute a rude inequal stratum. The primitive bowlders at least, must have been transported from great distances; inasmuch as no primitive veins or strata show themselves in travelling to the north-west, whence the main diluvial currents probably came, until we have crossed the Lakes Huron and Superior. Who cannot, therefore, recognize the former existence of mighty currents of the ocean waters, beneath which our continent has more than once been submerged? The larger blocks of sienite and granite, lie mostly in little colonies on the surface of the ground, angular still and unworn, as though recently quarried from their native fastnesses. If diluvial currents alone, were ever adequate to the conveyance of these huge fragments, what fortunate concurrence of circumstances could have prevented the mechanical removal of their sharp angles during the passage? May they not have been floated down from remote arctic shores on islands of ice?* In many localities it is almost impossible to

* The reader will find many interesting remarks on the subject, by Daniel Drake, M. D. in the Transactions of the American Philosophical Society for 1825.

distinguish the ancient *diluvium* from beds of *river-made alluvium* which to this day are in progress of formation. I have often sought among the sand and pebbles, and always sought in vain, for traces of animal or vegetable existence, which might be considered contemporaneous with the diluvial deposite. Seldom indeed do we meet with specimens of steatite, chlorite, and other of the less indurated, primitive minerals. May not the long continued mechanical violence, which gave to the jasper, the rock crystal and the greenstone smooth surfaces and rounded forms, have reduced the soft and fissile minerals to powder, and obliterated every mark of a more recent organized existence? We frequently meet with water-worn fragments of limestone, containing a variety of marine fossils; which fossils are referable however, to a more ancient formation.

Extensive beds of fine-grained, blue quartzose marl, show themselves in the vicinity of Akron. In the neighborhood of Canton, there is said to be a large tract covered to the depth of several feet with a calcareous marl, which among other good qualities, is found to be highly useful to builders. It is by no means improbable that similar deposites will hereafter be discovered in other sections, which will prove beneficial to the interests of agriculture.

In the northern counties near the anticlinal ridge, which sends its waters on either hand beyond the remote confines of the Union, many small lakes occur, on the quaking margins of which, the formation of *peat* is now in progress. So far as I have observed, nature carries on this operation mainly through the agency of two species of moss, (*Sphagnum latifolium, et Sphagnum acutifolium.*) Some of these lakes must in time be thus obliterated, as others obviously have been heretofore. Many interesting and authentic particulars respecting the disappearance of these lakes, have been given by Dr. William Wood in the February number of the Western Monthly Magazine.

De la Beche remarks, (Manual, p. 197,) that 'the relative age of the deposite, in which the remains of the *Mastodon maximus* are found, cannot be considered as very satisfactorily ascertained.' I am happy in being able to contribute any thing which may throw light on this matter. Three years since, the tusks and decayed bones of an unusually large mastodon, commonly called mammoth, were brought to light in ditching a quagmire, half a mile south of Massillon. I visited the locality on the ninth of last August. The remains were found in a boggy morass, of less than two acres area. Around

it on three sides at least, are stationed rounded knolls, made up of sand, gravel, argillaceous earth, pebbles, nodules of iron ore, and water worn bowlders of grauwacke and primitive rocks. The same diluvium is continued beneath the quagmire, the proper soil of which is a black vegetable loam, approaching the nature of peat, and about three feet in thickness. The precise situation where the tusks were found, is hard by an old deer lick, just within the margin of the morass, and about two rods west of the Ohio Canal. They were enveloped in the loam and rested on the gravel and pebbles at the bottom. Upon searching, my companion Mr. Lindsly, found only a small friable piece of bone. This quagmire, indubitably belongs to the group of modern formations, the gradual production of similar quagmires being often observed in our own day. The North American mastodon became extinct then, in comparatively modern times; doubtless long since the distribution of the ancient diluvium.

In prosecuting a geological exploration of the state, the qualities of mineral springs should be investigated; not only on account of their own intrinsic importance, but because they afford unerring indications respecting the nature of the strata through which they pass.

Many *tumuli* and other lesser monuments of antiquity, are scattered over our territory, which have never yet been noticed. These objects I imagine might very properly be embraced in a geological survey of the state.

Especial cognizance should be taken of the forest trees, and other vegetable productions. The native plants that spring up from a soil, often afford sure criteria by which to judge of its quality. Forest trees constitute a respectable item in the list of our resources; and as the kinds prevalent depend much upon the rocky substratum and soil, they should receive a share of attention.

AGE OF THE ROCK STRATA OF OHIO, COMPARED WITH EUROPEAN FORMATIONS.

I am pretty well satisfied, that so far as we may judge from the little which has been accomplished in the investigation of the organic remains found in the rocks of this state, that not one of our formations can be considered the precise geological equivalent of any of the European formations. Those 'historic medals of creation,' upon which so much reliance is justly placed, indicate clearly, in my opinion, that our limestones, sandstones, and coal measures, as a single group, were produced during that long period in the chronology of the globe,

which gave origin to the older fossiliferous strata of the eastern continent. Accordingly it seems that the *grauwacke* and *old red sandstone* of European geologists, is more nearly equivalent to this group, than are the *British coal measures* or the *new red sandstone*.

The following catalogue of western fossils, though meagre, compared with the unexplored variety exhibited by the rocks in which they are imbedded, will nevertheless assist the reader to form his own opinion respecting this subject. The catalogue has been compared with the list of fossils in the third London edition of De la Beche's Manual of Geology. Most of the names are followed by letters and figures, indicating whether the same genus has been noticed in the established carboniferous limestone or the grauwacke group; the number of species noticed in each; and whether the particular species is found in either or both of the formations.

EXPLANATIONS.

c — carboniferous limestone.
g — grauwacke.
m — coal measures.
x c — this species occurs in De la Beche's carboniferous limestone.
— c — does not occur in the carboniferous limestone.
g 20 — 20 species of this genus occur in the grauwacke.

Upon comparing the list of marine fossils of the Miami limestone, from the neighborhood of Cincinnati, with the organic remains of the carboniferous limestone and of the grauwacke, we have reason to regard the latter as more nearly its equivalent than the former. Thus the list embraces nineteen genera; sixteen of which are found in the grauwacke, ten only in the carboniferous limestone. The number of species belonging to the sixteen genera of the grauwacke is one hundred and sixty-nine; while the amount of species of the ten limestone genera is but ninety-two. In the same list are enumerated twelve species which have been satisfactorily determined; four of these species occur in the carboniferous limestone, eight in the grauwacke.

We here see the marine relics of the Miami limestone, correspond much more closely with the fossils of the European grauwacke, than with those of the carboniferous limestone of the same continent.

ORGANIC REMAINS.

ORGANIC REMAINS OF THE MIAMI LIMESTONE IN THE NEIGHBORHOOD OF CINCINNATI.

(Mostly determined by R. Buchanan, aided by the correspondence of Dr. G. Troost.)

ZOOPHYTA.

Calamopora c 2. g 9.
fibrosa *Goldf.* x g.
spongitis *Goldf.* x c. x g.
polymorpha *Goldf.* x c. x g.
favosa *Goldf.* x g.
Cyathophllyum g 20. c. 4.
Ceratites *Goldf.* x g.
excentricum *Goldf.* x c.
hypocrateriforme *Goldf.* x g.
Syringopora g 4. c 3.
ramulosa *Goldf.* x c.
Ceriopora (undescribed.) — g 6. — c.
Coscinopora g 1. c o.
Flustra g o. c o.

RADIARIA.

Encrinus g o. c o.

CONCHIFERA.

Spirifer c 20. g 18.
Terebratula c 21. g 30.
Producta c 26. g 13.
Modiola g 3. c o.
Mytilus g 1. c o.
? Strophomene rugosa *Raf.*

MOLLUSCA.

Trochus c 7. g 3.
Turbo g 6. c 6.
Turritella g 8. c 13.
Othoceratites g 30. c 13.

CRUSTACEA.

Calymene g 17. c o.
Blumenbachi *Brogn.* x g.
Isotelus g 2. c o.
gigas *De Kay.* x g.
stegops *Green.*

ORGANIC REMAINS OF THE CARBONIFEROUS LIMESTONE OF TENNESSEE, KENTUCKY, ILLINOIS AND MISSOURI, TO WHICH THE MIAMI LIMESTONE PROBABLY BELONGS.

(Featherstonhaugh's Geol. Rep. 1835. p. 26.)

ZOOPHYTA.

Calamopora.
Cyathophyllum.
Stromatopora g 2. c o.
Turbinolia g 4. c o.
Astrea g 3. c 1.

RADIARIA.

Pentremites c 3. g 2.
Encrinites.

CONCHIFERA.

Spirifer.
Plagiostoma.
Terebratula.
Producta.

MOLLUSCA.

Orthocera.
Bellerophon c 12.
Nautilus c 9.
Trochus.
Turbo.
Delphinula.
Euomphalus c 12. g 16.
Natica g 1.
Ampullaria 2 c. g o.
Hamites.
(1 sp. in oolitic group.)

CRUSTACEA.

Asaphus g 20.
platycephalus c 1.

ORGANIC REMAINS OF THE LIMESTONE WHICH OVERLIES AND ALTERNATES WITH THE COAL STRATA: AS WELL AS THE MARINE AND FRESH WATER RELICS FOUND IN THE ACCOMPANYING SHALE, ETC.

(Mostly on the authority of Dr. S. P. Hildreth. Sil. Jour. xxix. Oct. 1835. Names revised by Dr. S. G. Morton.)

ZOOPHYTA.

Turbinolia.
Madrepora g 1. c o.
Anthophyllum g 1. c o.
? Stylina.

RADIARIA.

Encrinus
rectus *Parkin.* ?
Cyathocrinites g 5. c 2.
pinnatus *Goldf.* x 9. — c.

CONCHIFERA.

Gryphæa g 1. c o.
arcuata *Park.* ?
Plagiostoma.

Spirifer
fimbriatus S. G. M.
cameratus S. G. M.
rostratus S. G. M.
fastigatus S. G. M.
Productus
pocillum S. G. M.
hepar S. G. M.
punctatus *Sowr.* ?
Terebratula
bovidens S. G. M.
nuciformis S. G. M.
lapillus S. G. M.
Gryphæa g 1. co.
Pholadomya
elongata. S. G. M.

MOLLUSCA.

Melania g 1. c 1.
Lymnea c 1. g o.
Helix c 1. g o.
Unio m 3. c o. g o.
petrosus S. G. M.
tumulatus S. G. M.
terrenus S. G. M.
sexulum S. G. M.
Anadonta?
abyssina S. G. M.
[This with the Uniones, from red marl, a few miles west of Marietta. According to Dr. H. this marl occurs under sandstone.]
Trochus.
Ammonites m 5.
bellicosus S. G. M.
Hildrethi S. G. M.
colubrellus S. G. M.
Nautilus.
Delphinula.
Turritella ? m 2.

MARINE FOSSILS IN THE SCIOTO LIMESTONE, NEAR COLUMBUS AND DUBLIN, FRANKLIN COUNTY.

ZOOPHYTES.

Calamopora.
Cyathophyllum g 20. c 4.
vesiculosum *Goldf.* x g. — c.
turbinatum *Goldf.* x g. — c.
Flustra.
Columnaria g 1. c o.
sulcata — g.

RADICARIA.

Pentremites.
Encrinus
transversus.
equicyclus.

CONCHIFERA.

Spirifer.
Productus.
Terebratula.

MOLLUSCA.

Orthoceratites g 30.
striatus *Sow.* x g.
circularis *Sow.* x g.
Bellerophon g 10. c 12.
Cornu-Arietis *Sow.* x g. x c.
Ammonites c 2. g 15.
Turritella.
Turbo.

CRUSTACEA.

Asaphus g 21. c 1.
megalopthalmus *Troost.*
candatus *Brogn.* x g.

ORGANIC REMAINS OF THE GRAUWACKE GROUP, MENTIONED IN THE CATALOGUE OF DE LA BECHE,* AS OCCURRING IN OHIO AND KENTUCKY. THEY WERE MOSTLY FOUND, I DOUBT NOT, IN THE MIAMI LIMESTONE AND ITS EQUIVALENTS.

ZOOPHYTA.

Cyathophyllum plicatum *Goldf.* Kentucky G. T.
Calamopora basaltica *Goldf.* Lake Erie *Goldf.*
Favosites truncata *Raf.* Kentucky *Brogn.*
Kentuckensis *Raf.* Kentucky *Brogn.*
Mastrema pentagona *Raf.* Garrard, Ky. Brogn.

MOLLUSCA.

Euomphalus catillus *Sow.* Lake Erie Ham.

CRUSTACEA.

Calymene Blumenbachii *Brogn.* Lebanon, O Brogn.

* London, 1836.

VEGETABLE ORGANIC REMAINS OF THE COAL FORMATION OF THE VALLEY OF THE OHIO.

(On the authority of Hildreth and Morton, when not otherwise stated.)

VASCULARES.

EUPHORBIACEÆ.

Stigmaria
ficoides *Lind.* ?

DICOTYLEDONS OF DOUBTFUL AFFINITY.

Asterophyllites J. L. R.

MONOCOTYLEDONS OF DOUBTFUL AFFINITY.

Poacites
lanceolata, De la Beche.

CELLULARES.

EQUISETACEÆ.

Calamites
dubius *Artis*, De la Beche.
(near) ramosus *Brogn.*
(near) cannæformis *Brogn.*

FILICES.

Neuropteris
Grangeri, De la B.

Sphenopteris?

Pecopteris
dilata *Lind.* ?
(near) Serlii *Brogn.*
(near) cyathea *Brogn.*
punctata *Brogn.*

Tæniopteris?

LYCOPODIACEÆ.

Lepidendron
selaginoides *Lind.*

? Bothrodendron *Lind.*

EPIGRAMS.

TRUE CHARITY.

A pauper, hobbling on one leg,
Stopped in a godly crowd to beg:
One said 'I *feel* for you, indeed!
'And I! and I!'—they all agreed.
The cripple answered, 'for my case,
You feel not in the proper place.'
'Ingrate!' cried one, and touched his breast,
''T is here I feel!'—thus all the rest.
Quoth he 'I value not a curse
Your feelings there:—feel in your purse!'

AN ITALIAN, whose country owes no gratitude to Napoleon's legion of honor wrote an epigram upon the cross of the order, of which the following is an imperfect translation;

Of yore, if one was robbed and proved his loss,
Ere long the thief was hung upon a cross:
Just Heaven! now plundered nations ask relief
And lo! a cross is hung upon the thief!

J.

MUSIC.

Guileless spirit! spread thy wing,
To my wearied senses bring,—
Long desiring, hoping still
Sweet repose or rapturous thrill,—
Ev'ry blissful impulse known
To thy magic sway alone:
List, Oh! list, and kindly heed
Welcome spirit, hither speed!

Peerless spirit! wielding power
Meet for ev'ry place and hour;—
Slumber to the new-born child,
Soother of the savage wild;
Breathed in native lays, arise
Friends and home to exile's eyes;
Heard by age in olden song
As fond voices, silent long;
Blessed comforter in grief
Bringing e'en despair relief;
Ecstacy in hours of joy,
Mingled never with alloy;
Where the young and happy meet
Life and grace to twinkling feet;
Valor, maddened to delight
Mid the havoc of the fight;
Incense from the lips of prayer
Guardian angels joy to bear;
Love's reliance and defence,
Nature's melting eloquence;
Lore, the sage may well regard,
Inspiration to the bard;—
Passions, thoughts, whate'er they be,
Force and beauty snatch from thee!

Wondrous spirit! spread thy wing,
To the soul and senses bring
Ev'ry blissful impulse known
To thy magic sway alone:
List, Oh! list, and kindly heed,
Welcome spirit! hither speed!

F. R. J.

ART. VI.—WESTERN LITERARY INSTITUTE.

THE spirit, which appears to have suggested the foundation of the College of Teachers, and is evinced in the proceedings, published under their sanction, is the best possible evidence of the importance of the cause in which they labor. The infant mind has been too long subjected to the caprices of individuals, who whatever knowledge they themselves might possess, were partially or wholly incompetent, either from native temperament or the want of apposite mental training, to impart that knowledge to others. The term pedagogue, which defined from its etymology is one of honor rather than disparagement, has well merited the ridicule and reproach now connected with its common acceptation. Carrying out the idea 'spare the rod and spoil the child,' the plan of inculcation used to be, in one respect, identical in nearly every school. Little was thought of the temper, the habits, the *mind* of the master; and nothing of his mode of tuition. Provided he possessed a modicum of the branches which figured on his sign, or in the regulations of a board of trustees, he was deemed able to perform his part; and to exercise with ability and success his mystery or profession, the most difficult in theory, and arduous in practice of any which does not necessarily demand the application of genius. On the other hand, natural diversities in the intellects of children, were not considerations entering into the thoughts of the parent or the plan of the school master. For slight causes frequent changes were made; and often by time a youth was expected to learn a trade or enter a college, he had been taught under as many systems as he had years, knowing little about any of them and less about what they were intended to convey. The passive tense is here used; but it is certain, that with some qualification, the same assertions might be made of the present day.

Again: the talents, or more properly, the aptitude of a pupil's mind for one study before another, or its general strength or weakness, were not considerations which directed his course. Perception, judgment, memory, fancy and every sentiment regulating intellectual taste were treated as equal in every one, received by a tutor for instruction. Allowances for natural differences were not made; all were driven forward and expected to travel pari passu.

This of the head. As to the heart, the method, if method it could be called, scarcely embraced an idea of cultivating it on the broad scale, that would eradicate vicious propensities or

habits and cherish its better affections. Hatred and aversion for the master, disregard of parents, and a spirit of contention among one another, to say nothing of grossness of thought exhibited in their conduct to disgusting excess, were permitted to take root in the breasts of school boys, poisoning all the germs of virtue, which accident or other means might have easily matured.

That all these evils have been at least, if they are not now, characteristic of common schools and academies, no man twenty years of age can deny. They have been crying long: they have been every where felt and public attention has been awakened to their suppression. The means have been considerable, from various sources, granted for the purposes of education; but it may be safely affirmed, that only very recently, have steps been taken to ensure their economical and commensurately beneficial employment. On teachers the accomplishment of these objects mainly depends. The public commonly or parents in particular instances can do no more than suggest:—it rests with those, who govern in the school-room to determine whether the time and expense in requisition, are given for the largest possible amount of useful information.

These several heads, at various meetings, have been discussed in the Western Literary Institute. They are not here stated in any premeditated order; but taken to the fullest extent, may be found to embrace all that is connected with general systems of education, in their actual operation and prospective designs. Mr. Albert Picket, in the opening address at the fifth annual meeting of the Institute, held in October last, has this very just remark; which includes indeed the whole basis, of the association. 'Hitherto, teachers have acted as isolated beings; without receiving light from each other; without instruction from the past, as there was no record of success or failure. All was conjecture. No index marked out the path by which one rose to high excellence; or by which, another was led into error or absurdity. Yet the scene is changed. Teachers, like other professional men, see the necessity of an interchange of sentiment, and union of action. The change has begun in its proper place; because it has begun with the instructors themselves.' And it is in their power to complete the change: to bring forth the light of the philosophy of education, which is still veiled in comparative darkness; to shed that light upon practice, with sufficient power to unfold and ripen the intellectual and moral qualities of the young, entrusted to their care, and consequentially, to add dignity, honor, and more certain rewards to their labors.

A comparison of views, on the abstract subject of education and proper modes of conducting it, has elicited addresses, reports and debates in the Institute, well worthy of attention. With some points discussed in the meeting of 1834, those interested in the subject are already acquainted. The principal matters, contained in the volume of transactions just published, are the opening address by the President, Albert Picket.—Domestic Education: by the Rev. G. J. Biggs. Education of Immigrants: by Rev. C. E. Stowe. Practical Education: by J. W. Scott, A. M. Anatomy and Physiology as a branch of study in schools: by Alexander Kinmont, A. M. Relative duties of teachers and parents: by Wm. H. McGuffy. Report on the best method of establishing and forming common schools in the West: by Samuel Lewis. Report on Mr. Grimke's plan of Education: Nathaniel Holley, A. M. Other reports of value with the remarks thereon follow these. What is of paramount importance in this interesting question, is the examination of facts. Speculative opinions can do little or no good: each one will entertain his own; or, what may be deemed a worse evil, many may be led to follow some ingenious theorist, unless the past and present operations of systems actually tried, both as to the broad scale of their application, and the distinct branches of learning, which they embrace, are carefully and dispassionately examined. Enough has been said on the importance of education in these debates. This theme is trite: it is wasting time to lecture on a topic which every one admits. Generalizing and declaiming will not ensure the assistance and co-operation of the people—that great mass of the people, who are parents, and whose good will at least, if not their money, is necessary to carry out the wishes of the more enlightened. They desire to see the machine in motion; as to the scientific principles of its construction they are indifferent: if models can be made, working well on a small scale, success, pàtronage, and illimitable expansion of the business must ensue. We are now speaking especially of common schools; but private seminaries may also be included in the proposition.

The report of Mr. Lewis, is, in one sense, the most important matter of 'the transactions.' It is to be regretted, that it cannot be in the hands of every man and woman in the west. From accurate data it appears, that in no entire county in the west, do the funds raised for public instruction amount to one dollar and fifty cents per annum for each scholar: a sum, it is needless to add, and as the gentleman clearly proves, wholly inadequate to the purpose. The provisions for public instruc-

tion in Cincinnati are greater than in any part of the country; many suppose the funds ample: yet it is shown, that each pupil cannot receive from the teachers now employed, two and a half minutes personal attention per diem. What can be expected of teachers in this state of things? What can be expected of scholars? The evil is briefly stated. What is the remedy? The report says money must be raised: and it ought to be raised. Rail-roads, canals, bridges and a thousand other things go on: money is found in abundance for them, and public spirit or a wise legislature should find it for education. It is not to be supposed that the entire demand can be supplied at once: but, as has been said above, if a few model schools on a well devised and settled plan can be started, so that the poor, disposed to give their mite, and the enlightened and liberal of the opulent ready to bestow largely, can feel assured that what they pay is wisely, honestly and efficiently employed, there will be no lack of additions from these sources, to the means provided by law.

It is understood that there should be uniformity in these schools: uniformity in the three divisions of which Education is susceptible; the moral, intellectual, and physical. The order is here reversed from that adopted by the committee on 'a manual of instruction.' All, it is supposed, may be laid down by parallel exertions; but the inculcation of virtuous principles, the formation of moral habits, in a word, the impulses and character of the heart, claim primary attention in contradistinction to whatever has reference simply to the intellect. Mr. Biggs contends very properly for parental care for this end: but parents are too often vicious or ignorant; neglectful, from indolence or want of leisure: and they are moreover beyond control. It should be the teacher's business, to fill their place, supply their deficiencies, and, it may be, correct the effects of their evil example. It is improper, in common schools where children of every denomination of christians are sent, that they should be indoctrinated with any points, on which there is such a diversity of opinion as to form the basis of sectarian divisions. The broad principles of christian ethics, perfect in themselves and indisputably adequate to the purposes of intercourse between man and man, may be comprehended by the meanest capacity, and in all their simplicity should be early and constantly impressed by the teacher upon his youthful charge. If this can be effected in this generation, we may look for a consummation of Mr. Biggs' hopes in the one to come. If parents now perceive not the necessity of training the child at *home*, in the way he should go, the Institute,

with all its collective ability and zeal, cannot cure their blindness or change their course.

The intellectual department of education is the second in order. To ensure similarity in this, there must, in the first place be some standard of qualification for teachers. What shall this be? Nothing in our humble opinion, short of a knowledge of all the branches, which in a college, entitles the possessor to a diploma. How, as a general rule, can the man whose range of ideas, just extends to the limits of that which he is required to impart to others, execute the task with those expanded views of his art, which are the soul, the essence of success? It is true, there are some, with strong common sense and long experience, though their pupils are constantly advancing close upon the line of their own acquirements, who are nevertheless most able and respected members of their profession. On the other hand, some, who if they have not like an eminent disciplinarian an honorary degree of L. L. D., enjoy a little less ambitious title and still are totally incompetent to teach the rudiments of their vernacular tongue. But the general assertion is, with both these qualifications, correct and tenable. He is unquestionable the best instructer in one science, who reasons and elucidates by analogies with others. While it may be disputed whether any collegian should learn the dead languages, there can scarcely be a doubt, that he, who wishes to *teach* English only, should be familiar with them. Every tutor then, of a common school, should be classically educated, to discharge his difficult avocation with certainty of success, so far as he alone is considered.

The second means of creating uniformity, is a settled course of instruction: both as to the several branches and the books treating of them; and in this matter, more than in any other, is the advantage of an assembly like the Western Literary Institute apparent. How much better for themselves, how much more satisfactory to parents, how much more rational, that their collective experience and wisdom should examine, determine, and adopt a scheme, at once explaining what should be taught and how it should be taught, than that every individual should carry into practice his own crude notions. The 'report on a manual of Instruction' appears subject to one or two exceptions, but to state and argue them would occupy too much space. It does not pretend to present any plan of instruction or to recommend certain books; it might have been well, had the latter subject been also referred to this committee; since it is one, on which there is quite as much contrariety of opinion as on that which engaged their attention.

They have one recommendation which should be every where accepted: namely, the study, in our primary schools, of the history and constitution of the country and the definition and nature of public offences. In addition also to the rudiments, as they are called, of English,—history, composition, a general idea of astronomy, geometry, surveying, natural and moral philosophy, the committee consider proper studies for the common school room. It is to be sincerely hoped that they will be. 'The transactions' embrace two or three reports on the adoption of particular books. But this is not sufficient. Nothing should be left in doubt that may be speedily settled. A careful and unbiassed examination of the works treating the branches recommended, should be made by a competent committee; those found least exceptionable, ought to be so mentioned with the grounds of the decision; and when there is a deficiency, qualified persons might be nominated to supply it. This, in one or more instances has been partially done: and there is no apparent cause for delaying the completion of the whole task.

Thus, nothing would be left for discussion about primary schools, except the discipline proper for master and scholars. It certainly, no more than the choice of books, should be left to private caprice. There is one method of teaching better than all others: let it be sought for diligently, without prejudice and without preconceived views operating upon the enquiry, and when it shall be found, let it be followed and not departed from. The subject is too vast for reflections here: and if it were not so, there are those whose anticipatedex planation of their opinions, render it unnecessary to dwell upon it.

Primary schools have not occupied all the attention of the Institute. The titles of several addresses, mentioned, show the variety of matters entering into its discussions. That of Mr. Kinmont merits an attentive perusal: the theme is important and his treatment of it masterly. Professor Scott's in the style is obnoxious to objection, but to none upon his division and explanation of the subject. In the discourse of Professor McGuffy is much beautiful composition and sound reasoning. The statistics and various facts given by Professor Stowe are valuable and cogent in support of his argument. Altogether the volume of 'transactions' is interesting and instructive. It is the product of labor and research, and he is wise indeed, who may not be enlightened from its pages.

Let the Western Literary Institute receive every encouragement: the past efforts of its members, are an evidence of

great talent, learning, industry and worth in the profession: they have awakened public attention, inspired interest and promoted enquiry. To continue united and energetic in the path chosen by the college of teachers, will extenuate their personal labors, elevate the general sense of their deserts, and while it adds to their own happiness, will at no distant period, improve the condition of the whole population of the West. R.

CRITICAL NOTICES.

THE AMERICAN IN ENGLAND. *By the Author of 'A Year in Spain.' Two vols.* 12*mo. New-York: Harper and Brothers.*

IT is unreasonable to suppose that individals, born and reared in a country, whose constitution and laws, and where the features of society are totally dissimilar to our own, can, by the cursory examination of a brief tour through our vast territory, form an accurate opinion of our institutions, manners and customs. The Fiddlers and Trollopes who have scraped and flaunted a little while on our soil, are too contemptible for the notice already bestowed upon the vulgar fables of which they have made it the scene. But there are others, from whom better things might be expected; and yet every one knows, that their superficial views, taken with prejudiced vision, are full of glaring defects, false delineations, and absurd coloring. As English tourists are thus unable or unwilling to present the United States and the condition of the people fairly, it is but rational to suppose, that one of our own citizens, visiting the British empire, though he consider himself competent from education and the liberality of his feelings, to mention things as they are, and with just inferences, may be nevertheless frequently and egregiously mistaken. It is with this impresssion that we open every book of travels, and read every letter upon that country coming from such a source. Yet the spirit of English and American tourists is evidently different. With ours, there is no evidence of that gross ignorance, self-conceit and national malignity, characteristic of many of the others. On the contrary, the complacency with which certain Americans have recorded their first impressions of noble society in England, and the tittle tattle of Lord A. and the Marchioness of B., which they had the honor of hearing at their tables or elsewhere, is quite disgusting to every man of good breeding and republican feeling. The person who writes such stuff is more despicable than the transatlantic slanderers already named.

A foreign traveller should give general not particular facts, if he would wish his readers to gain a correct idea of the country, he attempts to describe. Such also, should be the basis of his own opinons. Patriotism may be cherished in enlightened minds without prejudice: it should always so exist in the individual who pretends to make observations in a land whose government and constitution are opposite to his own. A perusal of the Americani n England has brought the conviction, that the author is of this class; he evinces the spirit of an American, and is at the same time guarded, temperate and kind in all his statements. And with this preface we come to his book. The title is ambitious. Portsmouth, London and Brighton are not England; and except of these places, we have no account. This is not right; when a book is misnamed by the author, it reflects no extra-credit on him, and disappoints and vexes the reader. The sin, it is hoped, is venial; being one of every-day commission; and booksellers may laugh at the mention of it.

The 'American' belongs to the navy. His first chapters are consumed with the voyage to Portsmouth and London. He dwells upon the sea, and most delightfully: and though these descriptions occupy one-fourth of the two volumes, they are by no means obtrusive. They put the reader in a good humor with all the rest. There is much detail of the architectural beauties of the cities mentioned above, given with sprightly effect: no records of confidential conversations, nor exposure of private and domestic scenes, disgrace the pages. We have marked a few passages, which are calculated to shew the state of society in England; about which there are many erronious opinions, carried to various extremes. It may be proper to add, that the author has travelled in other parts of Europe; and from comparison and the peculiar facilities he has long possessed for observation, is well qualified to form an accurate judgment on all that came under his notice. His style, of which our quotations are not the best specimens, is terse and flowing, and not surpassed by that of any contemporary on similar subjects. He is speaking of vessels in the Thames: 'The wind was too light to enable the outward-bound to stem the tide. They laid with their sails clewed down, at their anchors. As we glided by them, some were recognised as Indiamen, others as timber ships, others as emigrant vessels, transporting to remote countries of the east colonies of Englishmen, destined to adapt to more auspicious climes the laws, liberties, and arts of the mother country, and haply to keep alive her literature and her language, together with the memento of her greatness. One large black ship, whose open ports displayed gratings of stout iron bars, was bound with convicts to Botany Bay. She was filled with criminals, of a die of guilt and depth of depravity, such as England only can produce. They were victims of a system of legislation, for centuries in the hands of the rich, and used by them for the maintainance of their vantage ground, for the enslavement of the poor, to secure to them and to their descendants forever, whatever profit is evolved by the efforts of labor, conceding only to labor the food that sustains it. They might be looked on as prisoners of war, captured in the battles of that perpetual contest, which is kept up between property and poverty. They were going into exile to the fields of a distant colony, which however it may, and indeed it must, become one day

great, can never wholly escape from the stigma of its origin.' * * * * Mentioning London hacks, he says: 'The miserable plight of these vehicles, intended for the accommodation of the public at large, contrasted singularly with the same class of conveyances in our country, and bore strong testimony to the distinction of classes and disparity of fortunes here, and the humble condition of the third estate.' It seems that this oft repeated truth is continually presented to the mind, in the houses, the dress, the bearing, the language of Englishmen at home: and there, with all that is sublime and beautiful in art to awe and fascinate, these painful reflections will unavoidably mar the pleasure of the beholder. Thus again: 'In London, the races are most distinctly marked. It was not necessary to observe the cut of a coat or the fashion of the nether garment, to tell in an instant who was the bramin and who the pariah. The gentleman was easily distinguishable by his superior height, his air of generous feeling, his pride of step, and a certain erect, elevated, confident, contented, and—if I may add a quallification which applies to most of our native born population in America—independent and republican freedom and nobleness of carriage. The trader had a very different air, though he struggled to make it the same; for it was the effect of imitation. There was a blending of haughtiness and humiliation, a versatility held in preparation for contact with inferiors or the great; a look which could catch the expression of contempt and scorn, or soften at once into a complacent simper and cringing obsequiousness. Among the humbler classes, the physical conformation seemed to announce the peculiar and separate calling of each individual. The same trade, descending perpetually from father to son, through long succeeding generations, has occasioned a development of particular limbs and muscles. * * There was often a preposterous development of the neck, the shoulders, the arms, the hands. * * Many generations of sedentary life, a perpetuity of confinement at a work bench, evinced itself by a ludicrous shortness and diminitiveness of the legs.'

The women, it seems, wore a more grateful aspect. 'Nearly all plump and comely, and their complexions were universally good, even in this dingy atmosphere.' Their faces 'were almost all expressive, and many of them very beautiful.' Their form and gait are not the subject of compliment. Withal, however, the American says: 'the street population, excepting want of elegance in the women, compared favorably with ours. It was more picturesque and more varied in costume,' (of course;) 'there were more good looks, and a more abounding air of health and vitality.' Of the stage he remarks: 'The actors were very much the same as with us; that is, very coarse and vulgar, and very deficient in grace, good breeding, and truth to nature;' which for our side, every frequenter of the theatre can substantiate. To digress a moment; the exhibitions upon our boards (Cincinnati,) are with rare exceptions, unfit for any decent man to witness. As to young girls, not speaking religiously, but merely with a sense of social proprieties, they should not be permitted to enter the walls of a play-house as the drama is now conducted. It is a matter of notoriety, that independently of the indelicacy in the plots and groundwork of many pieces; the mere grossness of the characters, and the displays of half-clad females, there is a perpetual rivalry

between the low comedians, to minister by indecent equivoques, vulgar puns and undisguised profanity and obscenity, to the taste of the basest and most abandoned of our population. While such patrons are pampered, let those who have any self-respect or any desire to correct the abuse and eradicate the evil, withdraw from the theatre all countenance and support. If they will, its reformation will be forced, or its ruin ensured.

The famous Waterloo bridge has been frequently described. A fact connected with it is worth knowing: 'The foot-passengers, on entering the bridge, pass through a neat iron turnstil, which is connected with the machinery of a recording clock, locked up in the lodge, and not accessible to the keepers. This, by keeping an accurate account of all who enter, protects the company against the fraud of the keepers in delivering the amount of their receipts. This is certainly a most ingenious contrivance. It is a monument at once of human ingenuity and human baseness, and furnishes food for reflection on the degradation of the humbler classes in England. * * * Poverty, the inadequacy of a man's means to the comfortable support of his body, and the disproportion between labor and its just reward of wages, are the causes of the dishonesty with which this land teems; and tend to extend it by custom, example, and the freedom from shame, which a wide diffusion begets, until it has become a system. * * I do not believe that a native born American, however humble, could be found to submit to the insult of being penny-collector to such an accountant as this, and thus to acquiesce in the imputation of his own dishonesty.' Nor do we believe it. Due credit, however, is given by the writer to the vast charities of the rich: the number of benevolent institutions founded by individuals, are deserving of all praise: the benefactor's best reward is the knowledge of the happiness he may confer on the needy and suffering; and if England must lament multitudes of the latter, she may well boast of the former, unequalled in the variety and extent of their good works by any class in the world.

On the road from London to Brighton, the American finds occasion for some very just observations. 'On reaching the more open country, we passed at each instant some pretty villa of a retired citizen, the fit abode of a happy and contented competence. If there be any thing that I covet for my countrymen, it is the sweetly rural tastes of the children of this land, and their rooted love of retirement, from the city's din to the seclusion of groves and gardens. * * The country over which we passed was nearly without mountains, or any thing that rose even to the dignity of a hill. Its character of monotony, was however relieved by gentle undulations, along which the road wound meandering, and by the beautifying effect of art, every where visible in the effort to produce what was either useful or agreeable. The labor of cultivation was every where carried on with neatness and care. The fields were all enclosed with hedges, interspersed with trees, and where the plough had been used, the furrows were drawn with the nicest exactness. The farm houses were antiquated stone buildings, with an air of comfort and some show of taste; flowers were blooming in the windows; there were evergreens and shrubbery about the doors; to banish the idea of winter, fruit trees were trained against the walls, and the gables were overrun with ivy.

The men seemed, in general, sturdy and well grown; the women plump and tidy; and the children, which were sufficiently numerous to shew that the injunction to increase and multiply was not unheeded in the land, were healthy and clean, and full of mischief and cheerfulness.'

These extracts from the American in England have exceeded our usual limit; but every subject on the old mother country appears to be acceptable among us, when given with a proper spirit. The author might well have added from his notes, his views of the other parts of the kingdom: if 'this essay already satisfied *him*' it will not satisfy those who on perusal find his observations limited to three cities. Saving this objection, the work is pleasant and instructive reading, and is printed in very inviting style.

THE BOOK OF PLEASURES. *Philadelphia: Key and Bidâle.* 1836.

THE publishers of this work have issued a great variety of books, chiefly religious, moral, or instructive; and have earned the reputation of having, in the choice of their wares, some respect for their characters, as responsible men. The title, therefore, when it first met our eye, startled us. *The pleasures*, seemed to be oddly grouped among sober volumes of theology, moral essays, and school books. We wondered what seductive teaching, or what voluptuous disquisition, would be found under a title so ominous of evil. Upon opening it, however, we discovered that it comprised in one compact, and very beautiful volume, The Pleasures of Hope, by *Campbell*, The Pleasures of Memory, by *Rogers*, and The Pleasures of Imagination, by *Akenside*. We have, of course, no disposition to review these works. Our object is to recommend, briefly, the volume which contains them. It was an excellent idea — that of grouping them together; and it would not be easy to bring within so small a compass, a greater amount of genuine poetry. The volume is beautifully got up, and is one which every lady of taste should place upon her centre table, where the pleasures, as well as the graces, deserve, and usually find, a place.

The republication of standard works, deserves commendation. Amid the loads of trash that are poured out from our bookstores, it is refreshing to discover a volume of sterling merit, even though it be an old acquaintance in a new dress. Estimating as highly as we do, the importance of the influence of literature upon public sentiment, we feel grateful to him who publishes a good book. Society owes to that man an obligation, similar in kind, to that created by a valuable addition to the circulating medium of the country, but vastly higher in degree. The principle is the same. There will as certainly be books, among a people who think, as there will be money, among a people who trade. Thought will have a currency to represent it, as well as property. In either case, the good currency will swallow up the bad, or the bad will

drive out the good, at the bidding of those who regulate the market. The publishers are the great brokers, who direct the moral currency of the nation, and who either issue a precious metal, or impose upon the community, a spurious fabrication of rags stamped with a fictitious value.

The people will have books. Little as they may estimate authors, they could no more do without books than without the other necessaries of life. A man had almost as well be without a wife—indeed, the majority of mankind could more readily mend their own clothes, than do their own thinking. It is a very serious business for any one to undertake to think for himself; it is like going into a strange port without a pilot; and no reasonable man would undertake it, when he can purchase the thoughts of other men, more cheaply than he can train his own. Why should a man take the trouble to make up his mind upon any subject, when for a trifling piece of coin, he may buy a ready made up mind? Few *do* take the trouble.

The quantity of books sold in the United States, is incredible. We have not the means of placing the statistics before our readers, but we know that the number of books annually published is far greater than most men would be willing to believe. These, with our numerous periodicals, exert a vast, though silent influence upon the mind and morals of the republic, and it is important that every man whose suffrage can be brought to bear upon the character of the great national circulating library, should be induced to give it, in favor of sterling works, and against those which are pernicious.

THE POLITICAL GRAMMAR OF THE UNITED STATES; *or a complete view of the theory and practice of the General and State Governments, with the relations between them. By* EDWARD D. MANSFIELD, *Counsellor at Law Cincinnati. Published at New-York, Philadelphia, Baltimore, Charleston, Boston, Cincinnati, &c.*

THIS work is dedicated to the young men of the United States, and they cannot do better than to study it, for nowhere can they find as much information respecting the political institutions of their country, in as condensed and clear a form, as in this work.—The edition before us is the second and is stereotype. In thus perpetuating his work we think Mr. Mansfield has done wisely, for we cannot doubt that when more known, the 'Political Grammar' will be used very generally as a text book for schools and colleges—it is clear, logical, elementary, and condensed. We know not of any book better fitted to give the outlines of a science, than this is to give those of political law and action.

It begins with forty-eight definitions, by which the student is enabled to follow the writer's after-argument with ease, and the writer to argue with clearness and certainty. In beginning his work thus, Mr. Mansfield has made use of his mathematical habits of thought with judgment, and great

success: next comes an historical account of the origin of our present Constitution, in which the writer goes back to the first peopling of our country, and traces the various changes from the Colonial to the Confederative, and from that to the present form of government. He gives the essence of some of the earlier leagues formed and proposed among the states; and also the articles of the general Confederation of 1777;—pointing out, at the close of the chapter, the progress towards union which had been made up to that period.

The next chapter treats of the existing constitution: it takes up clause after clause, and comments upon each, stating the questions which have been raised, and the decisions and opinions which have been expressed respecting them. In this chapter may be found a complete sketch of Constitutional Law, with references to those reports and works which must be read to gain a full idea of the subject. At the close of it the Instrument is given in its connected form; together with Washington's farewell letter, and the ordinance of '87 for the governing of what was then the north-west Territory.

In chapter third we have the history of the ratification of the constitution, with the various objections made to it in the State Conventions, and the changes proposed by them. In this chapter are also given extracts from Washington's letter to the president of Congress, accompaning the Constitution; it is a paper which serves to show the light in which that great man viewed the question of consolidation, of late years agitated at the south. That question is one of vital importance, and Mr. Mansfield's book is throughout with Washington and Webster upon it; all which is well: but we think he would have done more wisely to speak out as to those that have opposed the Federal or Union party, instead of using terms that seem to insinuate a sneer; as when he speaks of 'the fanciful constructions' of 'metaphysical politicians,' and 'the spirit and objects entertained by some modern politicians,' and of 'a class of men, who either think or assert themselves to be the purest of patriots!'—pp. 202-3. These phrases smack too much—not of party opinion, but of party *feeling*, for a school-book. In books of instruction all questions should be argued without either eulogistic or dyslogistic* qualifications.

The fourth chapter gives an insight into the leading features of the State Governments, and is peculiarly deserving of study:—as is also the fifth in which are stated seventeen propositions, showing the nature and great principles or groundwork of both Federal and State Constitutions.

Lastly, come two chapters giving an account of the operation of the National and State Governments; into these chapters is condensed a mass of information respecting the Executive Departments, modes of proceeding &c., not easily obtained elsewhere, and nowhere found in so connected and logical a form. All parts of the work are easily referred to by means of the very excellent index at the beginning. We can compare Mr. Mansfield's Grammar, as a school-book, with but two other works: one is Judge Story's Commentaries, abridged for the use of high-schools and colleges; and of the

* Jeremy Bentham—opposite of eulogistic.

two we give the preference decidedly to the Grammar, as giving a more clear and full outline of political law in much less than half the space — Judge Story treats of the Federal Constitution and its powers, but not of the State Governments, nor the mode of operation of either.—The other work referred to, is the Political Class Book by William Sullivan and George B. Emerson of Boston; a very excellent and popular work, and which is so far from being a rival of Mr. Mansfield's that we should look on it as being almost a necessary companion. The Class book treats of political truth in the broadest sense of that term; of society in the abstract, of religion, education and the social rights and relations: the Grammar treats of governmental truth, and of that not generally, but as existing in the United States. The two works have different spheres, one within the other; and although Mr. Sullivan's work says much of the State Governments, and something of that of the Union, it cannot as a whole be looked on as a rival of Mr. Mansfield's much more particular and detailed exposition. The Class Book should be first studied; the Grammar next; and then Story, the Federalist, Elliott's Debates, and those of Judge Marshall's opinions referred to by Mr. Mansfield.

The typography of this work is creditable to our city; it has been very handsomely stereotyped by Messrs. J. A. James & Co. and with few errors; we have noticed but two or three and those of little moment.

CONTI, THE DISCARDED, *with other tales and fancies, by* HENRY F. CHORLEY. *Two vols. New-York: published by Harper and Brothers, No. 82, Cliff street.*

THE principal story of these volumes has claims to originality of conception: the execution deserves less praise. We have no disposition to forestall its interest with those who are inclined to read, by an analysis of the plot: its features are new and passably developed. Conti, the hero of course, is sufficiently excellent, without being immaculate, to excite sympathy and enchain attention. He is made to act consistently with his temperament as first described;— rather a rare merit as novels now run; in which we find in the commencement an elaborate view of the characters, who are afterwards left to act just as all other people would in their several situations, or as no one ever did or could act. The prominent female is awkwardly introduced, so that the reader cannot but dwell upon her first appearance, whatever charms are afterwards thrown around her. With this exception her part is skilfully sustained, and except her choice of a lover, who is a good clever fellow, and that is all, seems unique and is certainly agreeable, sometimes to fascination, throughout. The bad characters are truly bad. Milton's Satan, devil as he is, has often been mentioned for some good qualities, with all his fiendishness; and the genius of the immortal bard is in no part of his poem more conspicuous, than in the pity and compassion extorted for the prince of fallen angels.

It is a model for all who attempt to delineate baseness of whatever kind. There should be some redeeming virtue; some attraction; something above their grossness, to temper that species of disgust which is vexed and annoyed by their presence. Another fault of a few personages in this tale is, their burdensome insignificancy. If any thing, their frivolity is more disagreeable than the viciousness of the former. Yet Conti is a performance, in other respects decidedly successful. It has both extravagance and improbability: but these have been voted not only admissible, but it would seem from their frequency, essential to prose fictions which aspire to the length of one or two duodecimos.

Mr. Chorley's second volume contains a tale, and what he calls 'fancies of music.' The latter are thoughts on some composers and certain branches of music, interspersed with a few poetical pieces of moderate pretensions. The subject, which he touches, is handled with the freedom of one, who has heard and seen much of the science, but without profound study. Many of his notions are fantastic, and some of his opinions easily combated. As a whole, however, the essays are correct, and it is delightful to find one who can write, step forward and tell the plain truth about a matter that is less understood and less appreciated, than any other in the whole range of the fine arts; and at the same time most abused and degraded by pretenders, professional and amateur and nondescript. Musical sounds, considered relatively, have their basis in the laws of nature: as fixed and universally certain as those of motion or gravitation. From the simple vibration of a string, to the most complicated effects of instruments and voices, these unalterable rules determine what is correct or incorrect. To understand them thoroughly, for the purposes of application to original conceptions, requires native mental aptitude, (what the phrenologist would call *tune*,) many years of daily study, and the same maturity demanded for poetical or philosophical productions. Yet, so thoughtless and confiding are the public, that when a man professes to teach the science and the art, two very distinct things, in a given time, to every person young or old, he is believed and patronized. To make a shoe or cut a coat calls for a seven years apprenticeship: in this ratio of time to learning, music would never be acquired. How then can such quacks be supported by a community of just and enlightened people?

For the church, for the ball room, for the theatre, for the din of war and the peaceful fire-side, music is constantly invoked. Its presence is indispensable: the unhappy being who never can comprehend a 'concord of sweet sounds' must own, that of the luxuries of sense and sentiment it is the most necessary. With this conceded, it follows that the pleasure it brings, is measured first by natural perception of melody, and secondly, acquired by knowledge of harmony. When the former is very limited the latter may, for the ends of enjoyment, supply its place. And what is this enjoyment? Unquestionably the purest, and with some, the most ineffably rapturous that the feelings can receive. We say the purest: for taking musical sounds merely, they cannot by any ingenuity be made offensive to the virtuous mind. In objects of sight an artist may minister to the basest passions: but through the ear, without language, no corruption can enter. Further: the delight, which often excited becomes happiness, accompanying the reception of music, is various beyond the effects of other liberal arts, and proportionably intense.

With these impressions, who must not view a musical education as a blessing to its possessor; a source of innocent, diversified and exhaustless amusement, which it is utterly impossible for the uninitiated to understand; which they should have the common sense to admit, may in general be received by proper means, and which they should feel bound, for those dependent upon them when it is attainable, to ensure. Every step in the path of this science or art, enlarges the field of their gratification. It is not supposed that many can travel far; but without losing ground in the subjects of intellectual acquirement usually deemed essential, advances to a very desirable point may be made in this. Speaking of popular taste, Mr. Chorley justly remarks, 'now between this liking of *what they understand* and a genuine love of music, there exists as much difference as lies between the savage's love of beads and tawdry feathers, and the civilized lady's delight in the elegant ordinances of dress.' (Far more.) 'This word *savage* may sound harsh in the ears of some but the simile holds good, nevertheless. * * What they tolerate, and in some instances reach to admiring, is not music; though so perseveringly confounded with it, in popular opinion, that it may not be useless or uninteresting to devote a few words to the distinction of the two.' For the elucidation, reference may be had to the book.

We regret that our limits forbid farther reflections on this subject: to which the attention of parents, who would contribute to the happiness of their children, and it may be added of every one young and old, may be properly and profitably directed.

In glancing over the remarks upon *Conti*, we fear their spirit may be misapprehended. Unmerited or exaggerated praise, cannot ultimately, add any thing to literary reputation. It is preferable to mention partial defects and give general credit where it can be fairly done, as in this instance: and notwithstanding their many faults, Mr. Chorley's new tales are superior to some recently published, under names, which with the multitude, are synonymous with never failing genius.

ORDER OF REFERENCE AND REPORT *of the Special Master Commissioner in the Matter of the Ohio Life Insurance and Trust Company. Cincinnati.* 1836.

THIS report, which runs through fifty pages, is made by Henry Stanbery, Esq., of Lancaster, Ohio, as Special Master Commissioner, under an order of the Supreme Court of this state, who by the act of incorporation, exercise a plenary supervisory power over the Ohio Life Insurance and Trust Company. It gives a concise and clear analysis of the charter, the manner in which the company has been organized, and its business operations during the last year. It is not our purpose to offer in this place a synopsis of this report, although it presents the most systematic exposition of the powers and privileges of the company, that has been published, and does great credit to the talent and business tact the gentleman who made it. Much less is it our intention

to examine the expediency of conferring upon any corporation the powers which have been granted in the present instance. They may be great, and in some respects uncommon; if mismanaged individuals may suffer, if discreetly exercised the community will be highly benefitted. In this respect it is like all other monetary corporations, hemmed in, however, by more checks and safeguards than have been thrown around the other banking institutions of the state. The effort now making by a party, in the legislature, to repeal the law incorporating the Trust Company, gives it at this time a more than ordinary degree of interest. The case is a simple one, but fraught with lasting consequences to the public faith. It is not contended, we believe, that the legislature transcended the constitution in the grant of powers which it conferred upon this company, but it is assumed, they may be improperly used, and that in advance, it is expedient and right to repeal the charter, and this too after the stock has been taken, the company organized, and large amounts of capital invested on the solemn faith of the state. Under these circumstances, it is, we repeat, gravely proposed to repeal the charter! Upon such a proposition, we do not see how there can be a difference of opinion among men of intelligence and honesty. There is no shadow of justice in the measure — not even a pretence that the company have violated its charter; and had not the bill been actually introduced into the legislature, it would be difficult to believe that the proposition was any thing more than the idle gasconading of those who occasionally seek to win distinction by playing upon the prejudices of the people. Hitherto the public faith of Ohio, among the capitalists of New-York and London, has, through a stable and straight-forward course of sound policy in all her public operations, stood as high as that of any other state in the Union. Let the proposed repeal be made, and where is the public credit of Ohio? Gone — absolutely annihilated. Who will place themselves in the power of a state which unblushingly violates her faith, and wantonly disregards her most solemn obligations? A more iniquitous and suicidal proposition has never been brought before any legislative body. If carried, it will inflict a deadly blow upon the prosperity of Ohio, and should brand with faithlessness to her honor and interests, every member of the legislature who may enrol his name in favor of the measure.

THE ITALIAN SKETCH BOOK. *By* AN AMERICAN. *Philadelphia: Key and Biddle.* 1835.

THIS is a beautifully printed, and well written volume, the character of which is sufficiently indicated by the title. The subject is not to our taste. Italy is worn out — and it is ground upon which the traveller, seems always to lose, whatever amount of common sense he may have carried with him from home, and to have his whole mind filled with ruins and statues, and pictures etc. etc. The work before us is good in its way; it is written in a genteel, classical, sketch-book style, and will be very palatable to those who relish this sort of literary confection.

POEMS, TRANSLATED AND ORIGINAL. *By* MRS. E. F. ELLET. *Philadelphia: Key & Biddle.* 1835.

FROM a volume of more than ordinary merit, marked and numbered as per margin, and written by an American lady, we extract the following spirited lines, which convey an instructive lesson:

FABLE,

FROM THE SPANISH OF YRIARTE.

A bear who with his master sought
An honest living to obtain,
In dance professional essayed
The indulgent public's praise to gain.

Triumphant on the circle round
Gazing — at length an ape he spied:
'What think you of my art?' quoth he:
'Bad — bad!' the knowing ape replied.

'Indeed!' the disappointed brute
Sullen rejoined; — ''tis envy's strain!
Is not mine air the height of grace,
And every step with judgment ta'en?'

A pig approached; — with rapture gazed —
'Wondrous!' he cried; 'what steps! what mien!
A dancer of such magic skill
Ne'er has been, nor e'er will be seen!'

Bruin the sentence heard — and paused;
Long in his brain revolved the same —
Then thus, in modest attitude
Humbled and changed, was heard exclaim:

'When the wise monkey censured me,
I 'gan to fear my labor vain;
But since the pig has praised — alas!
I ne'er shall dare to dance again!'

Each author to his rule attend —
Doubt fortune, if the critic blames;
But when your work the fools commend,
At once consign it to the flames.

GILBERT GURNEY. *By the Author of 'Sayings and Doings.' Philadelphia: Carey, Lea, & Blanchard.* 1836.

THERE is a good deal of excellent fun in these two volumes, and some rather stale jokes. On the whole it is superior to most English novels, and almost as good as some of the productions of our own second rate authors.

THE MARYS; OR, THE BEAUTY OF FEMALE HOLINESS. *By* ROBERT PHILIP, *of Maberly Chapel. New-York: D. Appleton & Co.* 1836.

IN perusing this little volume, our attention was attracted by an elegant simile; which, though weakened by too much expansion, affords a theme for much reflection. It possesses great beauty, as well as truth.

'The origin of dew is an emblem of human piety in its *natural* state. The original elements of dew are as various in their character, as the diversified states in which water and moisture exist on the earth. Now they exist in swamps and seas, in marshes and meadows, in stagnant pools and running streams, in feted plants and fragrant flowers: but wherever water lies or lurks, whether in the chalice of a rose or in the recesses of a tank, it must undergo the same change, and pass from fluid to vapor before it becomes dew. As *water*, it cannot, however pure or polluted, ascend into the atmosphere, nor refine itself into dew: it may undergo changes of taste, color, and smell, according to the channels it lies or flows in; but into dew it will not turn, until it is exhaled in vapor by the sun.

'Now, the moral like the natural world, has its putrid marshes and its pure streams — its calm lakes and its stormy oceans; for although no class of mankind is naturally holy, some classes are comparatively pure, and others grossly vile. There are in society, the decent and the indelicate, the humane and the cruel, the cool and the passionate, the upright and the dishonest. These distinctions between man and man are as visible as those of land and water on the globe, and as real as the difference between spring and pit water. But no natural amiableness of disposition, nor any acquired refinement of character, amounts to true holiness, for as water, in its present state, must be exhaled into vapor before it can be transmuted into dew, so both the moral and immoral must be regenerated before they can enter Heaven.'

The writer again introduces the same felicitous figure, in another place, in the following language; but subject to our first objection.

'No scene of nature is more lovely than the summer landscape at sunrise when every field, grove, and hedge, is spangled with morning dew. The drops seem to sparkle with delight at the approach of the sun — climbing as he ascends to the top of every leaf, as if impatient to meet him in the air. Every admirer of nature has noticed this scene, and watched the dewy vapor rising like incense from the golden censer of summer. Who has not gazed with rapture on the glowing myriads of dew-drops, when each of them is a miniature of the sun which gilds them? And, when the Sun of righteousness shall arise, on the morning of the resurrection, the heirs of glory will be as numerous and beautiful, as the dew of the morning.'

THE NATURALIST'S OWN BOOK: *Comprising authentic anecdotes of quadrupeds; scientifically arranged according to the system of Cuvier. By the Author of the 'Young Man's Own Book.' Philadelphia: Key & Biddle.* 1835.

THIS is a handsomely printed book, ornamented with wood cuts, and forming a very suitable present for the juvenile reader. We commend it to our young friends, and their parents, as a very capital thing, in its kind. It is full of useful knowledge, and is agreeably interspersed with entertaining anecdotes.

TRAITS OF INDIAN CHARACTER; *As generally applicable to the Aborigines of North America. Drawn from various sources; partly from personal observations of the author. By* G. TURNER, *Member of several literary and philosophical societies in Europe and America. Philadelphia: Key and Biddle.* 1836.

THIS is a collection of anecdotes, in two volumes, in relation to the Indians. Judge Turner, the compiler, was a judicial officer in the North-western Territory, many years ago, and has enjoyed many opportunities for personal observation of the Indian character. The greater part of his matter, however, has been selected from other writers, and some of the anecdotes are very old, and have been frequently published. The collection is valuable, but would have been infinitely more so, had a greater degree of caution been observed, in examining the authorities from which the matter has been taken; on some of which, not the slightest reliance is to be placed. This is to be the more regretted, as the history of our Indians, which is beginning to excite great interest, is corrupted by a mass of fictions, some resulting from the mistakes of hasty and incompetent observers, and others, the inventions of ingenious men, not even founded on fact. The task of winnowing the mass, and separating the chaff from the grain, remains to be performed, and we regret when any one who might contribute towards this purification of our national literature and history, omits to avail himself of the opportunity.

We desire, that we shall not be understood as condemning the work before us, which comprises many valuable facts; it is only to be regretted that the compiler has admitted materials from other works, of far less interest and anthenticity than that which is furnished by himself.

CHAIRCLAS, PRINCE OF PAIDA: *by the author of* PELHAM, *&c. &c. with other tales by the authors of 'Vivian Grey,' 'Sayings and Doings,' 'Highways and By-ways,' &c. &c. Philadelphia: Carey, Lea and Blanchard.* 1836.

A HIGH sounding title to a volume containing two good, two indifferent and four bad stories. Mr. Bulwer's among the first class, is pleasing but wants finish. The whole merit of allegorical or fairy tales suffers, if the language be slovenly. For them something above a colloquial style is demanded. 'The deserted village,' by the Countess of Blessington, is the best in the book: the narrative is simple, consistent and affecting. 'The sleeping partners,' by T. C. Grattan, Esquire, and 'A tale of the seventeenth century, by the Honorable G. C. Grantley Fitzhardinge Berkley'!!! belong to our second class, and this is saying enough: and 'The consul's daughter,' 'Poor Dummy,' 'Caroline Williams,' and 'Captain Gray' belong to our third class; and this is saying too much of them, if they were not found in better company.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS,

For the Month of JANUARY, 1836; *taken at the Woodward College, Cincinnati. By* JOSEPH RAY, *M. D.*

JAN. 1836.	Thermometer. min.	max.	m. tem.	Barometer. mean height in's	Course Wind. AM-PM.	Char'tr of Wind.	Rain and Snow	Char't'r of Wind.	Miscellany.
1	22.0	44 0	33.2	29.460	w-w	lt. wd.		clear.	
2	25.1	38 2	35.3	29.427	w-w	lt. wd.	38	cloudy	Wet afternoon.
⊙ 3	38 0	45.0	44.2	29.417	w-sw	lt. wd.	42	cloudy	Very dark day.
4	44.8	60 5	48.8	29.187	sw-sw	str. wd	56	vari.	Wet forenoon.
5	35 8	55.8	41.5	29.280	sw-sw	lt. wd.		clear.	[com. 9 p. m.
6	30.0	55.1	45.8	29.257	sw-sw	lt. wd.	71	vari.	Wet nigt; rain
7	44 1	52.1	47.8	29.050	se-se	lt. wd.	16	cloudy	Wet day.
8	34.8	50.1	40.6	29.210	sw-w	str. wd	03	cloudy	
9	29.0	36.0	31.6	29.370	nw-nw	str. wd		cloudy	Very windy.
10	24.0	33.9	27.5	29.500	nw-nw	str. wd		vari.	
◑ 11	19.8	41 5	35.2	29.380	nw-nw	lt. wd.		vari.	
12	36.0	46.1	40.7	29.290	nw-nw	lt. wd.	04	cloudy	Wet forenoon.
13	31.0	45.5	36.3	29.433	nw-nw	lt. wd.	02	vari.	
14	29.0	36.0	31.8	29.597	nw-nw	lt. wd.		cloudy	
15	29.8	37.5	32.0	29.557	nw-n	lt. wd.		cloudy	
16	27.0	34.2	32.9	29.263	ne-ne	lt. wd.	22	cloudy	
17	34.0	42.2	36.6	28.963	nw-nw	str. wd		cloudy	Stormy night.
● 18	23.5	33.1	26.8	29.300	w-w	str. wd		clear.	
19	21.6	37.0	27.2	29.467	w-w	lt. wd.		vari.	
20	16 0	43.0	33.9	29.450	sw-s	lt. wd.		vari.	
21	36.2	45.5	35.0	29.197	s-s	str. wd	31	cloudy	Strong wind all
22	14.0	24.5	16.5	29.513	w-w	str. wd		clear.	night.
23	8.0	22.8	17.0	29.667	w-w	lt. wd.		clear.	Canal froz. over.
24	18.0	29.0	22.8	29.497	w-w	str wd	12	cloudy	Snow ¾ in. deep
◑ 25	13.0	35.5	23.8	29.510	nw-w	str wd		vari.	
26	12.0	19.0	14.6	29.583	w-w	str wd		vari.	
27	8.0	19.0	10.6	29.497	w-w	str wd		cloudy	
28	0.0	16.5	11.1	29.563	w-w	str wd		clear.	
29	10.0	37.5	29.5	29.343	sw-sw	str wd		fair.	
30	28.0	43.2	30.1	29.203	sw-sw	str wd		vari.	Sudden change
31	6.0	14.0	7.8	29.267	w-w	str wd		vari.	Coldest day.

Mean temperature of the air, (Fahrenheit's scale,) -	30° 6
Maximum height of thermometer, - - -	60° 5
Minimum height of thermometer, - - -	0° 0
Range of thermometer, - - - -	60° 5
Warmest day, Jan. 4th.	
Coldest day, Jan. 31st.	
Mean height of barometer, (English inches,) -	29.377
Maximum height of barometer, - - -	29.68
Minimum height of barometer, - - -	28.94
Range of barometer, - - - -	0.74
Perpendicular depth of rain and melted snow (Eng. inches)	2.97

Direction of Wind.—N. ½ day—NE. 1 day—SE. 1 day—S. 1½ days—SW. 6½ days—W. 12½ days—NW. 8 days.

Weather.—Clear and fair 7 days,—variable 11 days,—cloudy 13 days—Canal frozen over from the morning of the 23d to the 31st.—Navigation of the Ohio entirely impeded by floating ice during the last week of the month.—Mean temperature of this month, four degress less than that of the same month in 1835.